VIA ELECTRONIC MAIL

August 5, 2020

John Hopkins
Remedial Project Manager
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Mail Code – 3LD10
Philadelphia, PA 19103-2029

Subject: **Quarterly Progress Report No. 15**
Former Kop-Flex Facility Site, Hanover, Maryland
USEPA ID No. MDD043373935
Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA

Dear John:

On behalf of EMERSUB 16, LLC, a subsidiary of Emerson Electric Co., WSP USA, Inc. (WSP) is submitting this quarterly progress report describing the remedial activities conducted in the second quarter of calendar year 2020 (April 1 through June 30) as part of the corrective measures implementation at the former Kop-Flex, Inc. facility property located at 7565 Harmans Road (Site) in Hanover, Maryland. The Site is identical to the area described as the "Facility" in the Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA (Consent Order) for the Site. The report also describes the activities planned for the third quarter of calendar year 2020 (July 1 through September 30).

This progress report is being submitted to the U.S. Environmental Protection Agency (EPA) pursuant to Section VI.C.3 of the Consent Order. Please note that, in addition to performing the work conducted under the Consent Order, EMERSUB 16 continues to fulfill its remedial obligations under the October 2015 Response Action Plan (RAP) approved by the Maryland Department of the Environment (MDE) Voluntary Cleanup Program, and that EMERSUB 16 copies EPA on all submittals required under that program.

If you have any questions, please do not hesitate to contact us at 703-709-6500.

Kind regards,

Robert E. Johnson
Senior Technical Manager
Water & Environment

MML:REJ:rlo
K:\Emerson\Kop-Flex_Reports_Progress Reports\EPA Progress Reports\CM Progress Report 15 Q2 2020\

Encl.

cc: Mr. Stephen Clarke, EMERSUB 16 LLC
Ms. Richelle Hanson, Maryland Department of the Environment

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CERTIFICATION

I certify that the information contained in or accompanying this quarterly progress report is true, accurate, and complete.

As to those portions of this quarterly progress report for which I cannot personally verify their accuracy, I certify under penalty of law that this quarterly report and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: _____

Name: Stephen L. Clarke

Title: President of EMERSUB 16, LLC

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Quarterly Progress Report No. 15

Former Kop-Flex Facility Site

April 2020 through June 2020

Site Name:	Former Kop-Flex Facility
Site Address:	7565 Harmans Road Hanover, Maryland 21076
Consultant:	WSP USA Inc.
Address:	13530 Dulles Technology Drive, Suite 300 Herndon, Virginia 20171
Phone No.:	(703) 709-6500
Project Coordinator:	Eric Johnson
Alternate:	Lisa Kelly

1.0 ACTIVITIES COMPLETED DURING APRIL 2020 – JUNE 2020 REPORTING PERIOD

1.1 HYDRAULIC CONTAINMENT SYSTEM OPERATION

- The System operated for 57 of the 91 days during the 2nd quarter of 2020, which equates to a 62% run-time efficiency over this 3-month period. System shut-downs included brief (2-day) periods in early April, late May, and late June due to minor issues with the pH adjustment system, flow equalization tank water level alarms, and boiler used to generate steam for the resin regeneration process, respectively. Longer term (approximately 2-week) System shut-downs also occurred at the following times during the reporting period:

  - April 30th through May 12th :problem with the pump equipment used to inject the 25% caustic soda solution into the treated water pipeline for pH adjustment, which necessitated replacement of the pump-head assembly and fittings for the tubing from the caustic storage vessel.

  - May 30th through June 13th :problem with the control head that regulates the flow of "tap" water through the water softener and into the boiler along with regeneration of the softener salt, which temporarily halted the steam regeneration of the resin vessels until the defective component could be replaced and soft water again used for the boiler feed.

  In addition to the above System shut-downs, deep recovery well RW-1D was off-line from April 8th through 23rd due to malfunctioning of the pressure transducer deployed inside the well casing. The transducer unit was replaced, and the well resumed pumping on April 24, 2020.

- While in operation during the second quarter of 2020, a total of approximately 5.90 million gallons of impacted groundwater were extracted by the recovery wells and treated by the System, with the combined average withdrawal rate during full-scale operation ranging from 70-74 gallons per minute. During System operation, water samples were collected for chemical analysis in April (influent) and April through June (effluent) to monitor and evaluate concentrations of volatile organic compounds (VOCs) and 1,4-Dioxane in the untreated and treated water. The total concentration of chlorinated VOCs (CVOCs) and 1,4-Dioxane for the System influent sample was 554 micrograms per liter (µg/l), which is noticeably higher than the concentrations in the recent quarterly influent samples. The higher total CVOC + 1,4-Dioxane level was solely caused by a 2.5x increase in the 1,4-Dioxane concentration from an average of 115 µg/l in the October 2019 and January 2020 samples to 290 µg/l in April 2020. The prolonged, 3-week shut-down during performance of the resin cleaning activities in late February through mid-March probably allowed for the 'back-diffusion' of 1,4-Dioxane from low-to high permeability zones within the impacted portion of the aquifer system, with the re-distributed mass recovered when the System resumed full-scale operation in late March. As of the end of June 2020, a total of 322 pounds of CVOCs and 139 pounds of 1,4-Dioxane had been recovered from the aquifer system.

- Beginning in late April and resuming in mid-May 2020, WSP collected treated water samples from the lead resin vessel to evaluate 1,4-Dioxane breakthrough of the cleaned resin material (copies of the certified laboratory analytical reports for these samples are provided in Enclosure A). Graphical analysis of the sampling data indicated the cleaned resin exhibited a significant (approximately 7x) increase in the amount of water processed before reaching the site-specific cleanup level of 15 µg/l compared to the pre-cleaned material (Figure 1). However, the absorptive capacity of the treated resin did not achieve that of the "virgin" material.

- Monthly effluent samples were collected for chemical analysis in accordance with State Discharge Permit Number 15-DP-3442 and National Pollutant Discharge Elimination System (NPDES) Permit MD 0069094 issued by the MDE (Discharge Permit). Analysis of the effluent samples indicated non-detect concentrations of VOCs and non-detect to very low concentrations of 1,4-Dioxane. The analytical results for these and the other monitoring parameters were in compliance with the effluent limitations specified in the Discharge Permit.

1.2 RESIN FOULANT EVALUATION

- Given the fouling on the resin media used to remove the CVOCs and 1,4-Dioxane, WSP conducted work to characterize the nature of the potential dissolved foulants in the groundwater from the impacted portion of the aquifer system This foulant characterization involved an assessment of natural organic carbon and petroleum-related constituents by collecting samples of the extracted groundwater from influent and effluent points in the System along with samples from the un-impacted portions of the Lower Patapsco aquifer.

- On May 14, 2020, samples of the extracted groundwater from the shallow and deep recovery wells, effluent from the lead resin vessel, and the System effluent were collected from sampling ports along the water conveyance lines for the System. In addition, groundwater samples were collected from the background monitoring wells for the shallow (MW-01) and deep (MW-27D) portions of the Lower Patapsco aquifer using the low-flow purge and sample procedure (Figure 2). All samples were analyzed for the following constituents:

  - extractable petroleum hydrocarbons diesel range organics (with and without silica gel cleanup);
  - hexane extractable organic matter (with and without silica gel cleanup);
  - total organic carbon;
  - fulvic acid; and
  - humic acid

- Analytical results for the foulant characterization samples are summarized in Table 1. A copy of the certified laboratory analytical report for the samples is included in Enclosure B.

- Extractable petroleum hydrocarbons were only detected in the sample and duplicate from the deep background monitoring well, MW-27D. The non-detect levels in the silica gel treated samples from this well suggest the diesel range constituents are petroleum degradation products. Detectable concentrations of total organic carbon (TOC), which is typically used as a measure of natural organic matter, along with fulvic acid and humic acid were found in all collected samples. The system effluent sample, VSP-4, had the highest concentration of TOC and humic acid. The combined shallow recovery well discharge and combined deep recovery well discharge samples had the highest detections of fulvic acid.

1.3 GROUNDWATER LEVEL MONITORING

- Groundwater level monitoring is conducted to gather data to evaluate the hydraulic response to remedial pumping in both the shallow (unconfined) and deeper (confined) portions of the Lower Patapsco aquifer at the Site. During the reporting period, water level measurements were collected from all monitoring wells and recovery well piezometers the week of May 11, 2020, as part of the semi-annual groundwater monitoring event. The data for this and previous measurement rounds is provided in Table 2.

- Contour maps depicting the water table and hydraulic head conditions in the lower portion of the shallow, unconfined zone are provided in Figures 3 and 4, respectively. Evaluation of the hydraulic head distribution and gradients at the groundwater surface and lower portion of the unconfined zone are discussed separately below.

  The water table contour map (Figure 3) indicates the continued presence of a lowering of the groundwater surface around well MW-38R, which is located near recovery wells RW-1S and RW-2S. The higher water level elevation at well MW-42 near the western property boundary indicates the presence of an elongated, north-south oriented depression in the groundwater surface in this area of the Site. In the eastern portion of the Site, a slight mounding effect continues to exist around wells MW-04 and MW-09. The water table mounding reflects enhanced recharge to the groundwater system associated with the storm water management area in this portion of the Site.

  As with previous measurement rounds, the most pronounced head changes (i.e., drawdown) occurred within the permeable sand deposits comprising the lower portion of the shallow zone, with a well-developed cone of depression in the piezometric surface centered around the shallow recovery wells RW-1S and RW-2S and extending to the north toward well MW-43 (Figure 4). Based on the head contours, the groundwater inflow area for the shallow recovery wells encompasses the inferred width of the CVOC and 1,4-Dioxane contaminant plumes in the western portion of the Site.

- The potentiometric surface contour map for the deeper confined portion of the Lower Patapsco aquifer generated from the May 2020 water level data is provided in Figure 5. The head distribution shows the continued existence of an elongated hydraulic sink along the southern property boundary in response to groundwater withdrawals from the deep recovery wells (RW-1D and RW-2D). Evaluation of the head distribution indicates drawdown of the potentiometric surface extending south onto the adjoining Williams Scotsman property. The groundwater inflow area in response to the groundwater pumping from the deep recovery wells encompasses the inferred width of the deep contaminant plumes in the southern portion of the Site.

1.4 GROUNDWATER QUALITY MONITORING

- In accordance with the Groundwater Monitoring Plan, groundwater quality samples were collected from the shallow and deep recovery wells and the onsite monitoring wells identified for annual sampling under the monitoring program. Monitoring well MW-1 was added to the list of onsite monitoring wells to be sampled annually. Samples from the shallow and deep monitoring wells were collected using HydraSleeve passive samplers, which were deployed to the same depths as previous monitoring events. Groundwater samples were obtained by carefully removing the HydraSleeve sampler from the well and decanting a representative portion of the collected water into the laboratory-supplied containers. If a sufficient amount of groundwater remained in the HydraSleeve sampler after sample collection, selected field parameters, including temperature, pH, oxidation reduction potential, specific conductivity, dissolved oxygen, and turbidity, were measured and recorded. For the recovery wells, the samples were collected directly from an in-line sampling port located at each well-head. All water samples were submitted to the Pace Analytical Services laboratory in Huntersville, North Carolina, and analyzed for VOCs using EPA SW-846 Test Method 8260D and 1,4-Dioxane using modified EPA Test Method 8260D with selected ion monitoring.

  Analytical results for the site-related CVOCs and 1,4-Dioxane are summarized in Table 3 for the monitoring well samples and Table 4 for the recovery well discharge samples. Copies of the certified laboratory analytical reports for the samples are included in Enclosure C. Historical (December 2016 to present) data for the monitoring well samples are provided in Table 5. The following is an overview of the May 2020 sampling results.

- For the shallow (unconfined) zone, samples of the untreated discharge from recovery wells RW-1S and RW-2S had total concentrations of detectable CVOCs + 1,4-Dioxane of 965 µg/l and 496.7 µg/l, respectively (Figure 6). The results for these recovery wells showed an increase compared to previous sampling data. (See Section 1.1 of this report for a possible reason for the increase in constituent concentrations.) As with the historical data, the total CVOC + 1,4-Dioxane concentration in the RW-3S sample remained lower relative to the other shallow recovery wells, with only 1,1-dichloroethane (DCA) (3.4 µg/l) and 1,4-Dioxane (17.2 µg/l) detected at concentrations slightly above the Site Groundwater Cleanup Standards. The CVOC and 1,4-Dioxane concentrations in the groundwater samples from the shallow zone monitoring wells are similar to levels detected in the November 2019 samples. The only exception was a noticeable increase in the 1,1-dichloroethene (DCE) concentration in the MW-16 sample (Figure 7).

- In the deep recovery well samples, 1,1-DCA, 1,1-DCE, and 1,4-Dioxane in the untreated water remain at concentrations above the Site Groundwater Cleanup Standards (Table 4). As with recent data, the sample results indicate higher levels of chlorinated CVOCs (1,1,1-trichloroethane and degradation products) in the discharge from well RW-1D (341.2 µg/l) in the southwestern portion of the Site compared to RW-2D (251.5 µg/l) located near the southeastern corner. In the deep monitoring well samples, the chlorinated VOC and 1,4-Dioxane concentrations for the May 2020 samples are generally similar to levels detected in the November 2019 samples (Figure 8). The presence of constituent concentrations below the applicable cleanup levels in the MW-22D and MW-40D samples indicates the width of the groundwater contaminant plumes in the deeper confined portion of the aquifer in the southern part of the Site is being captured by the inflow to the deep recovery wells.

2.0 PLANNED ONSITE ACTIVITIES FOR THE THIRD QUARTER OF 2020

- Continue with the full-scale System operation, including the collection and assessment of System data to evaluate operational performance, and conduct regular and as needed maintenance activities to maximize System run-time.

- Continue with the evaluation of pre-treatment technologies that could remove natural organic carbon/matter from the influent, thereby preventing fouling of the resin media. This evaluation will include the collection of a second round of System influent and effluent samples for the analysis of natural organic material.

- Conduct the required effluent monitoring and monthly reporting pursuant to the State Discharge/NPDES Permit.

- Prepare and submit to MDE the renewal application for the State Discharge/NPDES Permit for the discharge of the treated groundwater to Stony Run via Outfall 001.

Given the ongoing novel coronavirus pandemic, it is possible that planned field activities could be delayed and re-scheduled to ensure conformance with government-issued directives and to address potential health concerns raised by the current Site operator – Catalent Cell and Gene Therapy. EMERSUB 16 will coordinate Site activities with EPA and MDE to the extent possible to avoid any delays or disruptions regarding the completion of these field tasks.

3.0 KEY PERSONNEL/FACILITY CHANGES

There were no changes to key project personnel during the reporting period.

FIGURES

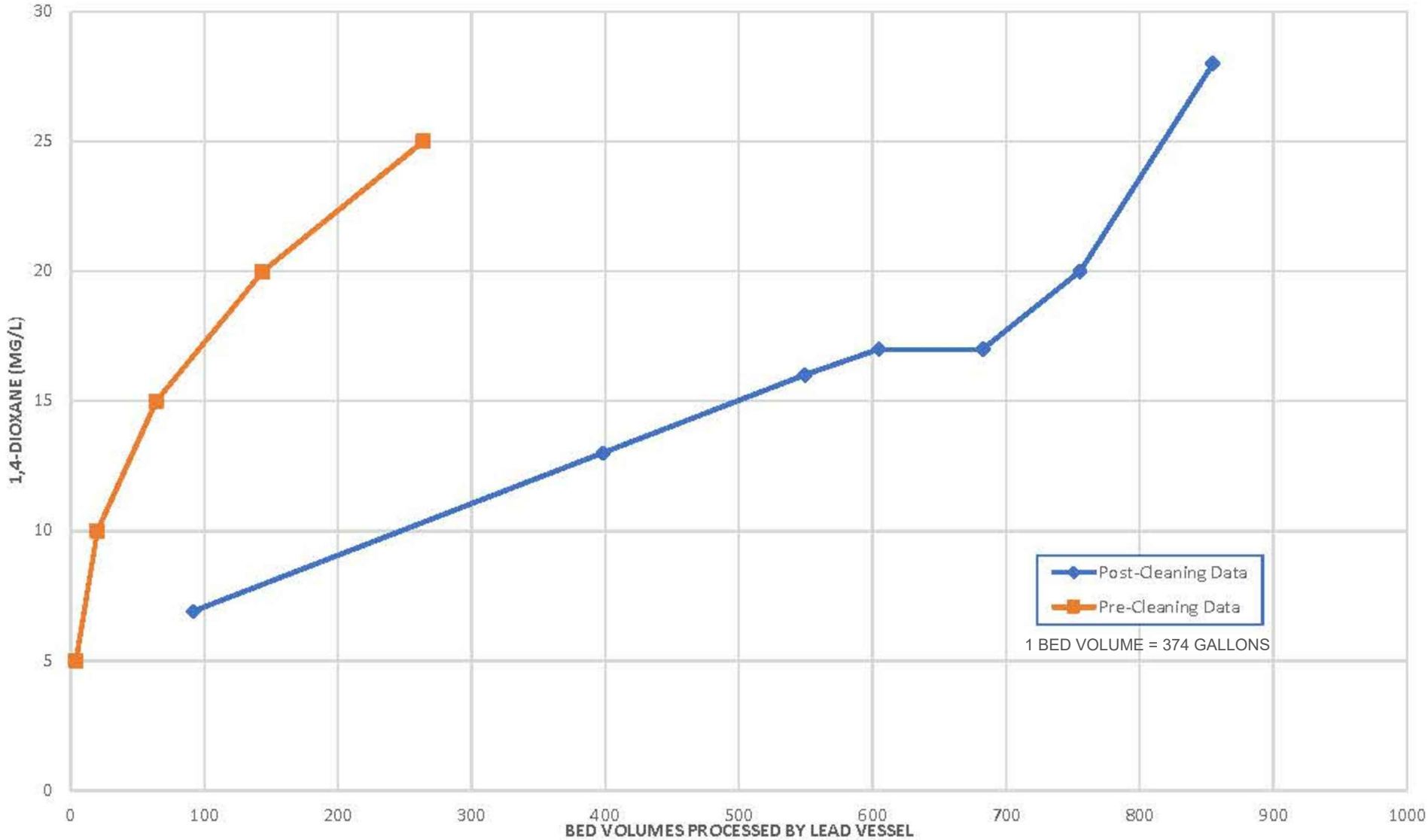

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Figure 1

DATA SHOWING 1,4-DIOXANE BREAKTHROUGH OF TREATMENT RESIN

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

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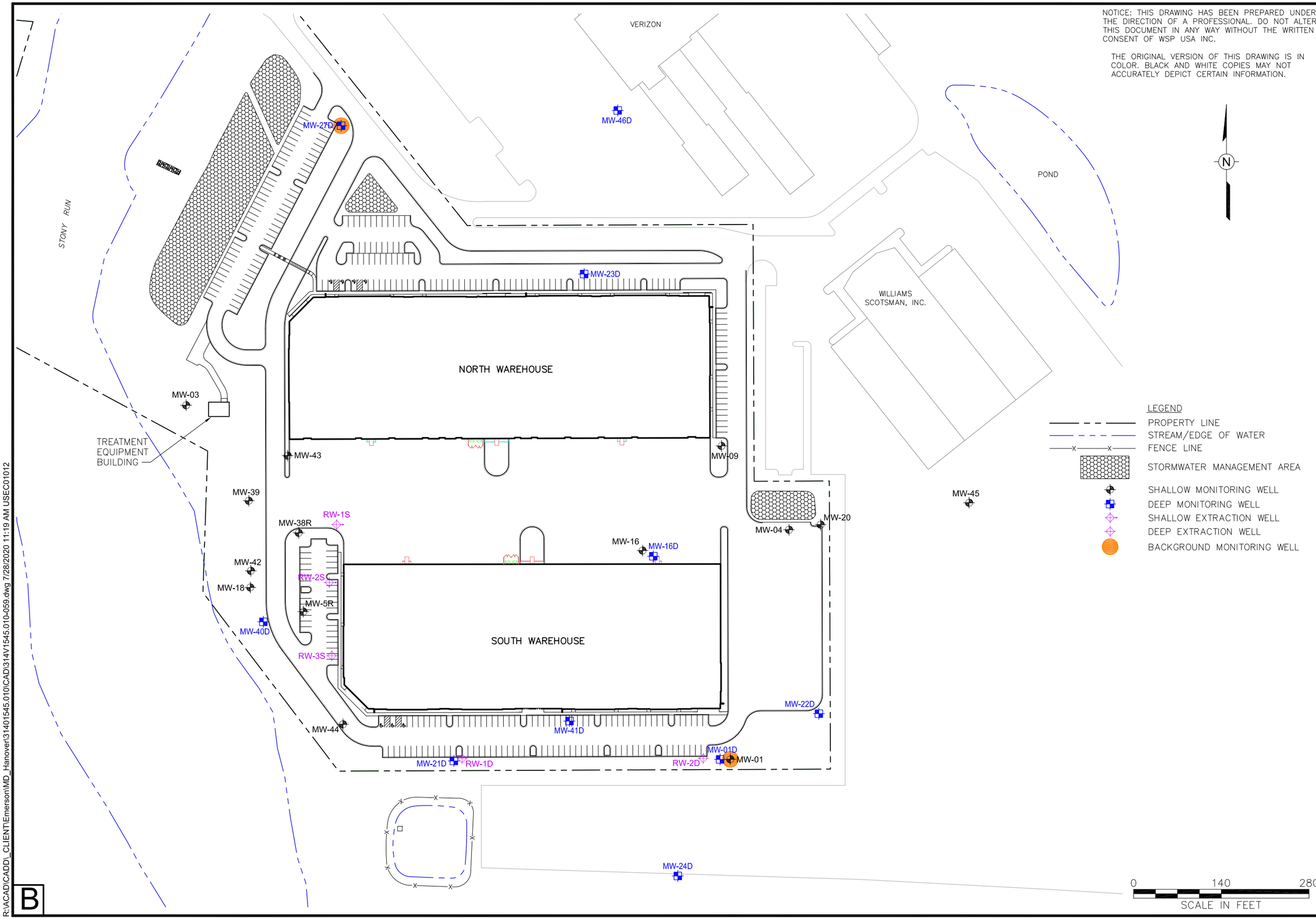

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FIGURE 2

BACKGROUND GROUNDWATER SAMPLING LOCATIONS FOR POTENTIAL FOULANT CONSTITUENTS

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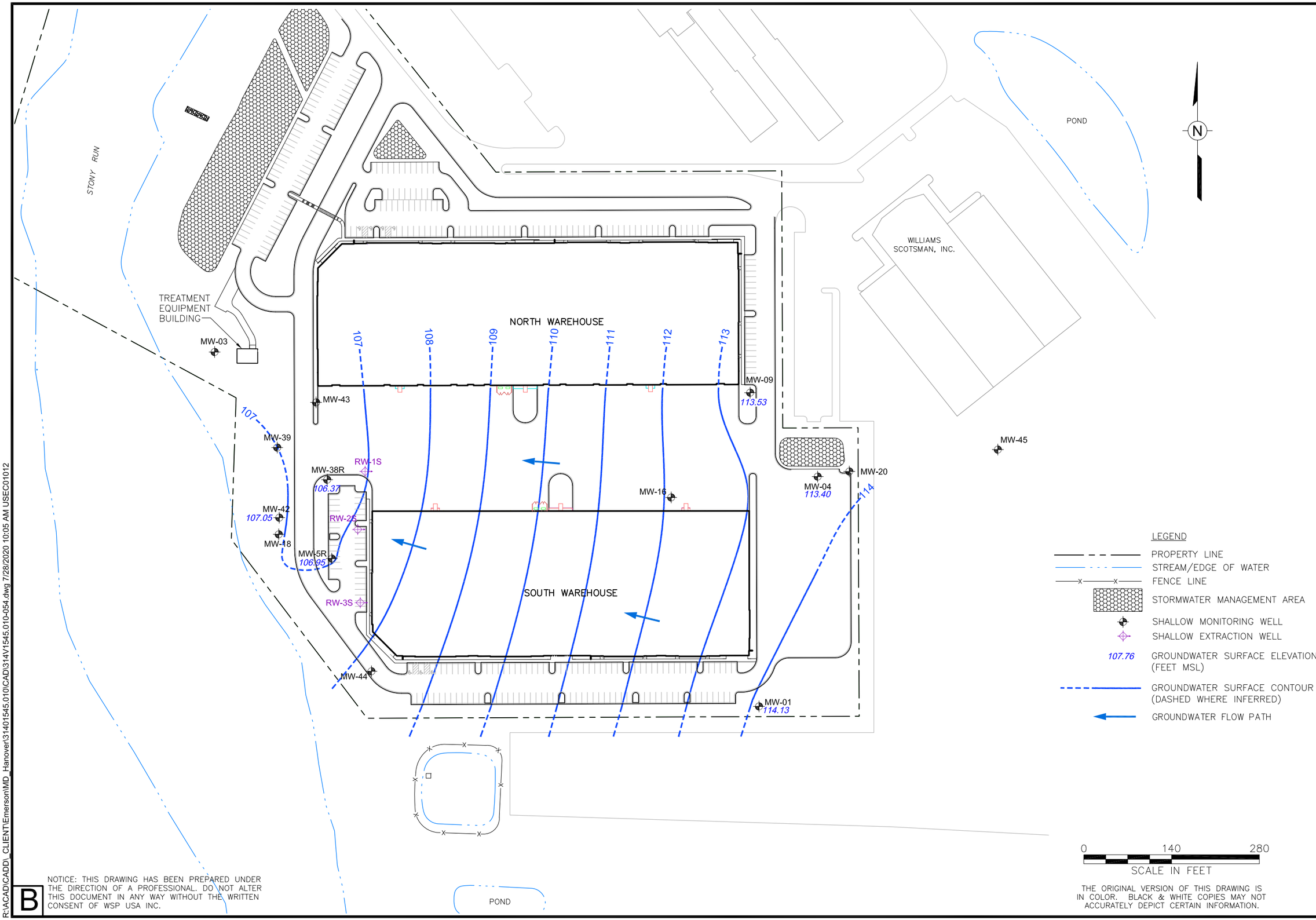

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FIGURE 3

WATER TABLE CONTOUR MAP
(MAY 2020)

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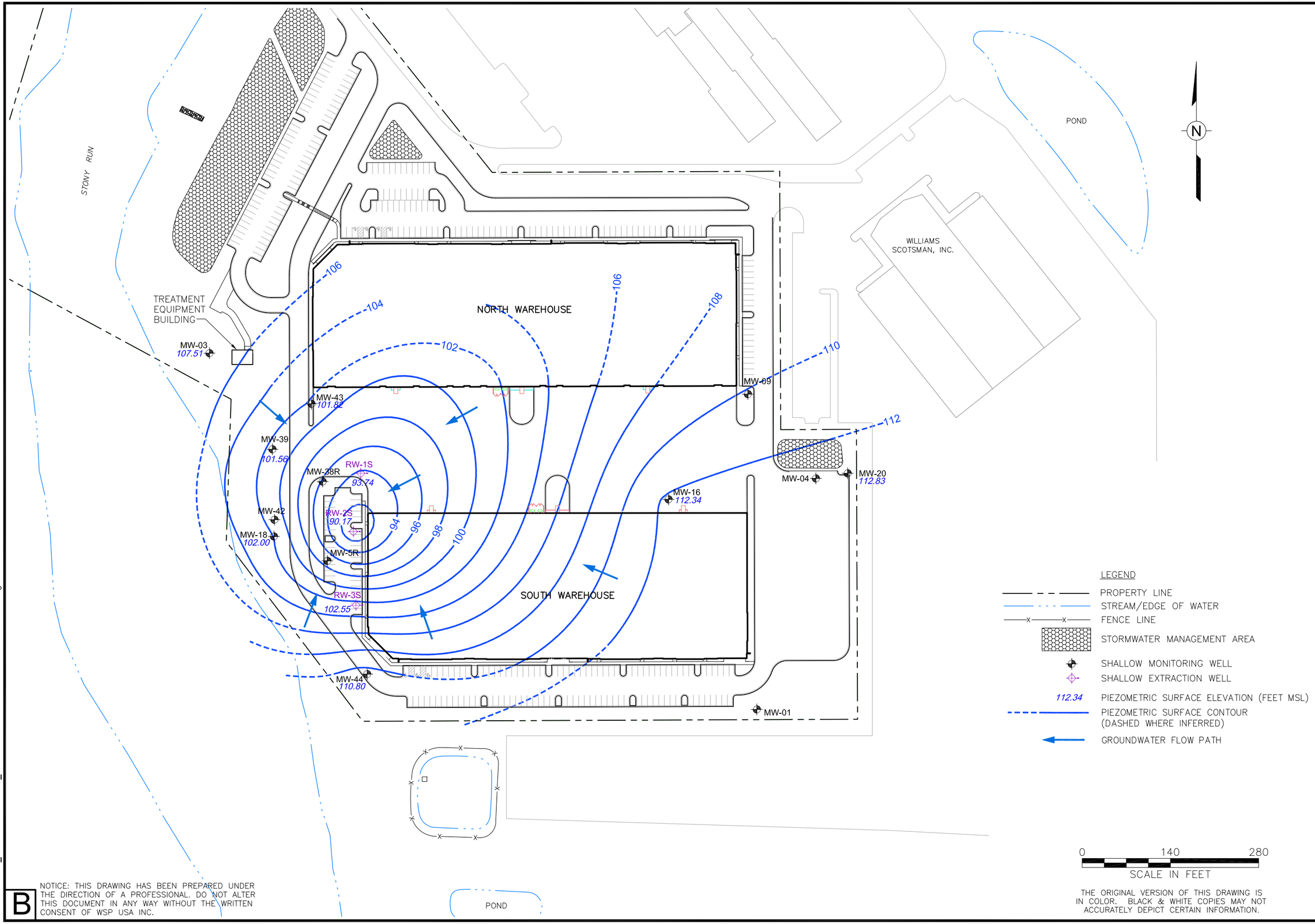

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FIGURE 4

PIEZOMETRIC SURFACE CONTOUR MAP FOR THE LOWER PORTION OF THE SHALLOW ZONE OF THE LOWER PATASPCO AQUIFER (MAY 2020)

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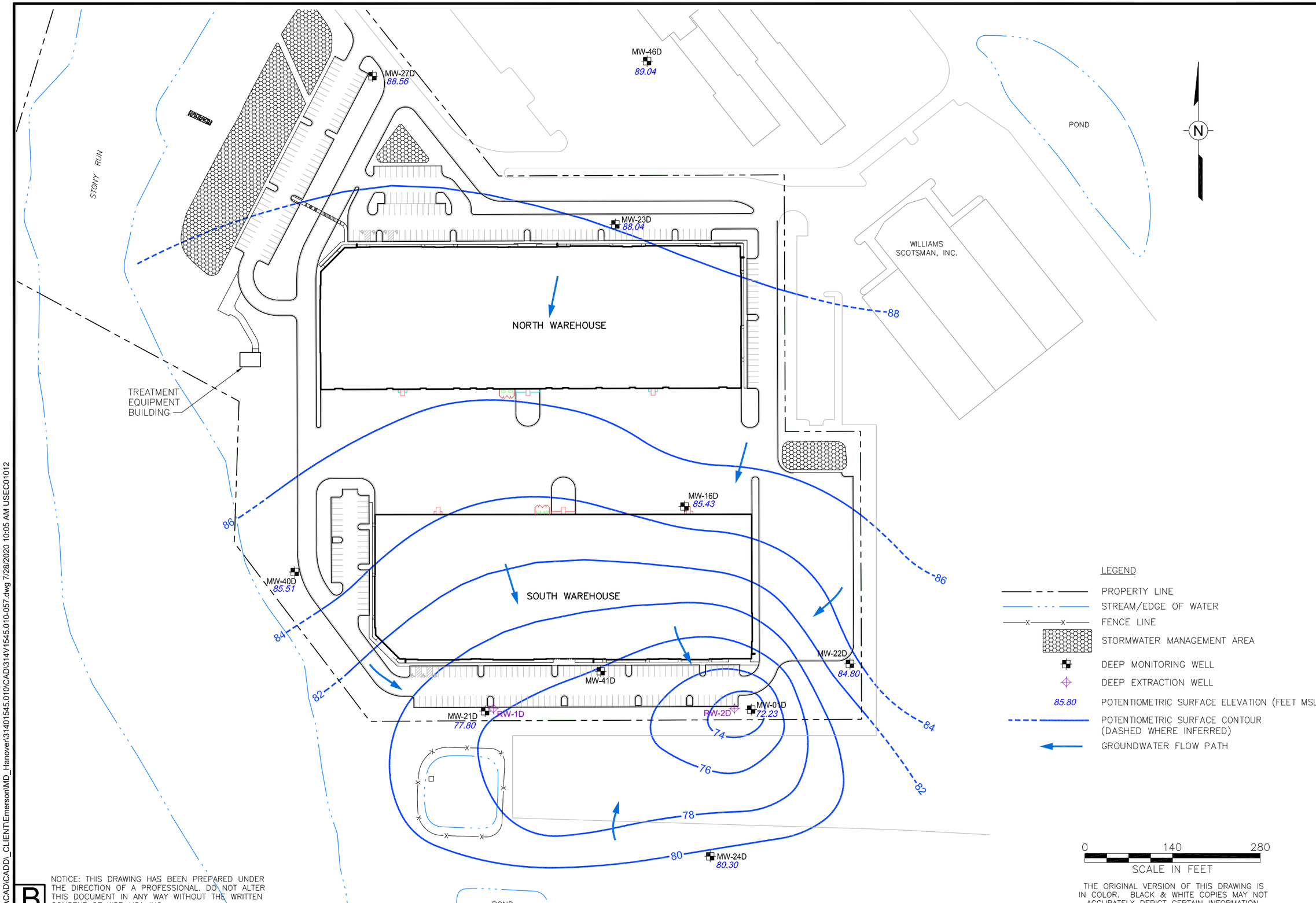

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FIGURE 5

POTENTIOMETRIC SURFACE CONTOUR MAP
FOR THE DEEPER PORTION OF THE
LOWER PATAPSCO AQUIFER (MAY 2020)

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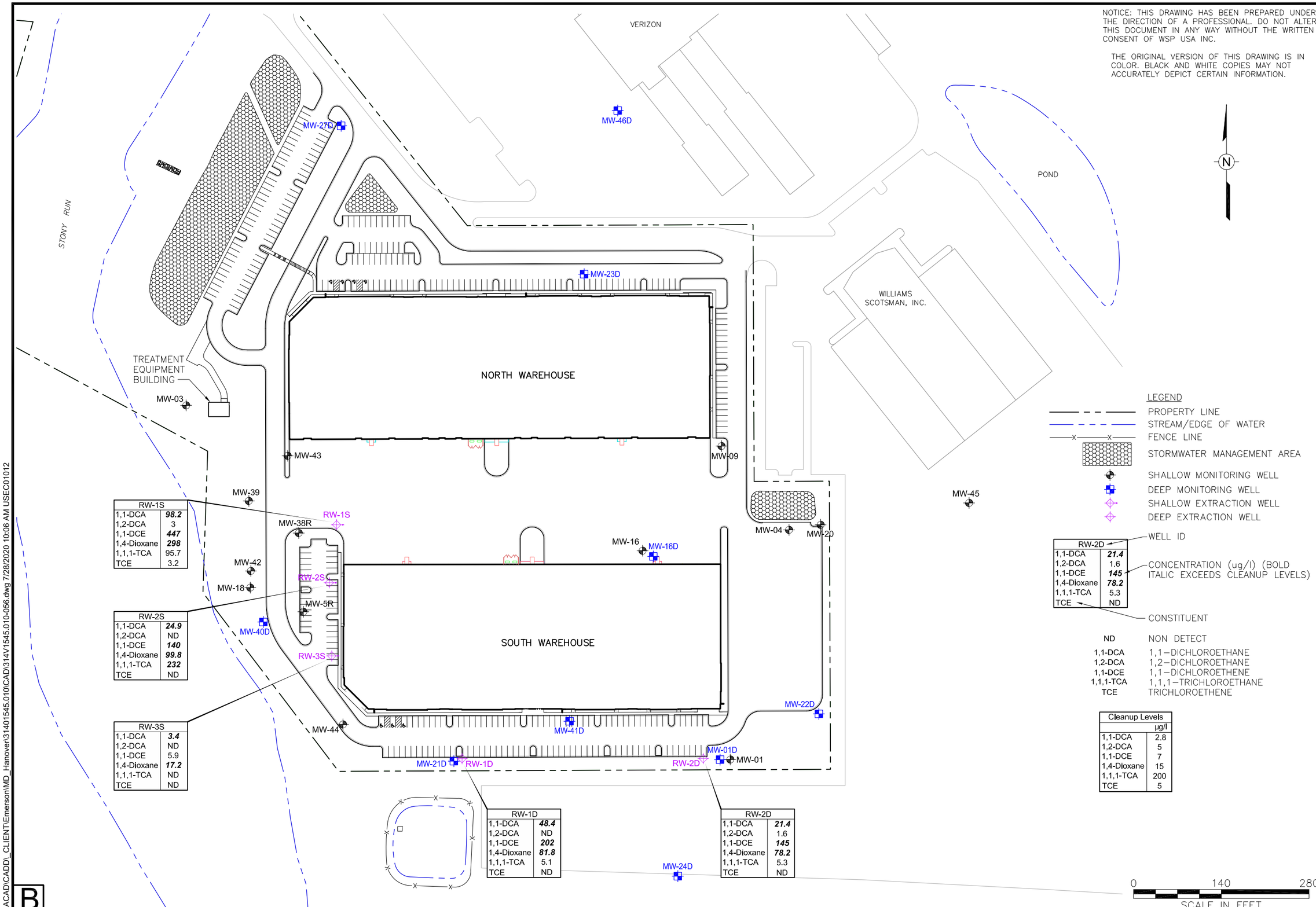

RW-1S	
1,1-DCA	***98.2***
1,2-DCA	3
1,1-DCE	***447***
1,4-Dioxane	***298***
1,1,1-TCA	95.7
TCE	3.2

RW-2S	
1,1-DCA	***24.9***
1,2-DCA	ND
1,1-DCE	***140***
1,4-Dioxane	***99.8***
1,1,1-TCA	***232***
TCE	ND

RW-3S	
1,1-DCA	***3.4***
1,2-DCA	ND
1,1-DCE	5.9
1,4-Dioxane	***17.2***
1,1,1-TCA	ND
TCE	ND

RW-1D	
1,1-DCA	***48.4***
1,2-DCA	ND
1,1-DCE	***202***
1,4-Dioxane	***81.8***
1,1,1-TCA	5.1
TCE	ND

RW-2D	
1,1-DCA	***21.4***
1,2-DCA	1.6
1,1-DCE	***145***
1,4-Dioxane	***78.2***
1,1,1-TCA	5.3
TCE	ND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

RW-2D	
1,1-DCA	***21.4***
1,2-DCA	1.6
1,1-DCE	***145***
1,4-Dioxane	***78.2***
1,1,1-TCA	5.3
TCE	ND

WELL ID

CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)

CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1–DICHLOROETHANE
1,2-DCA	1,2–DICHLOROETHANE
1,1-DCE	1,1–DICHLOROETHENE
1,1,1-TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	
	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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FIGURE 6

GROUNDWATER RECOVERY WELL RESULTS
(MAY 2020)

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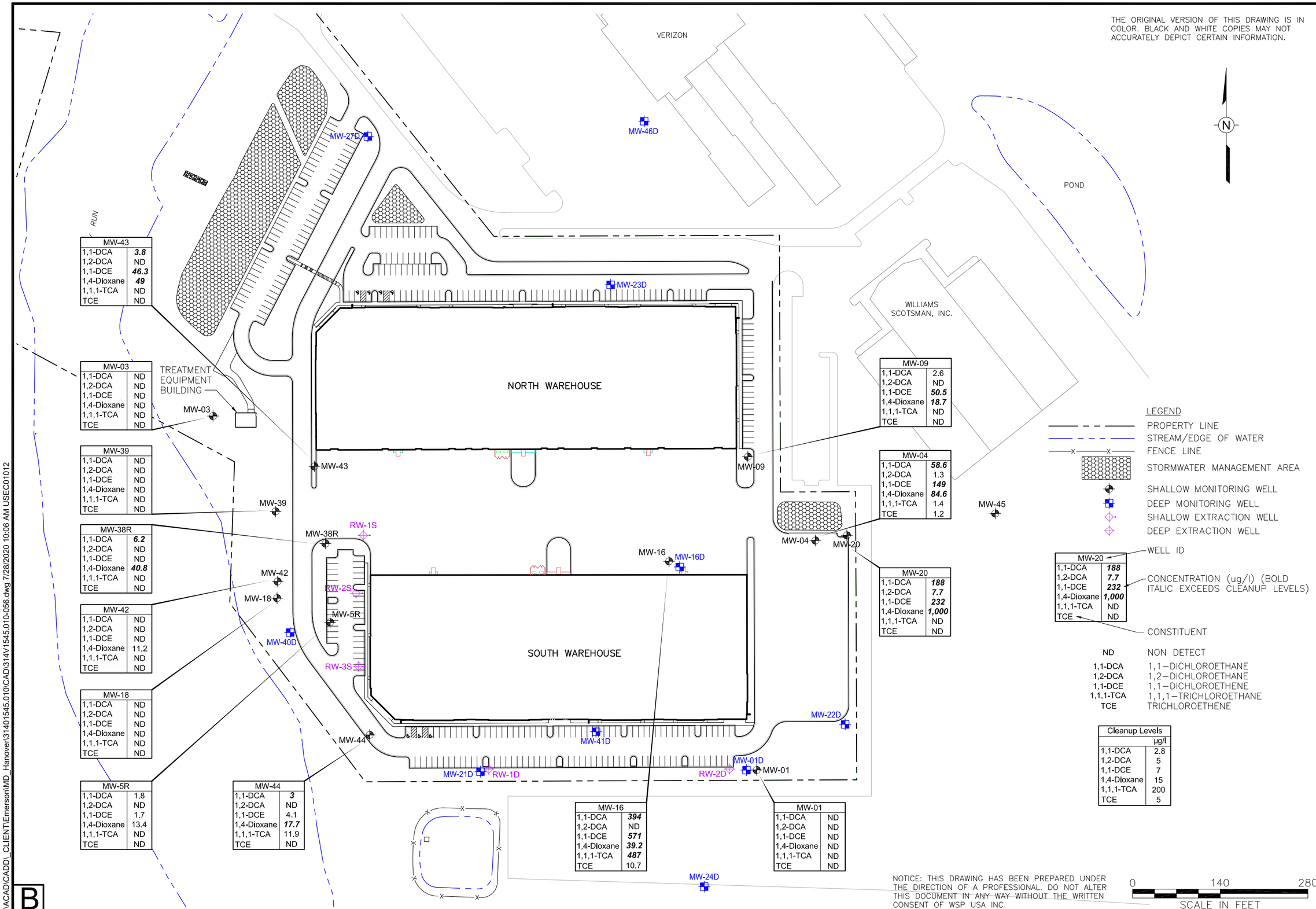

MW-43	
1,1-DCA	***3.8***
1,2-DCA	ND
1,1-DCE	***46.3***
1,4-Dioxane	***49***
1,1,1-TCA	ND
TCE	ND

MW-03	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

MW-39	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

MW-38R	
1,1-DCA	***6.2***
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	***40.8***
1,1,1-TCA	ND
TCE	ND

MW-42	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	11.2
1,1,1-TCA	ND
TCE	ND

MW-18	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

MW-5R	
1,1-DCA	1.8
1,2-DCA	ND
1,1-DCE	1.7
1,4-Dioxane	13.4
1,1,1-TCA	ND
TCE	ND

MW-44	
1,1-DCA	***3***
1,2-DCA	ND
1,1-DCE	4.1
1,4-Dioxane	***17.7***
1,1,1-TCA	11.9
TCE	ND

MW-09	
1,1-DCA	2.6
1,2-DCA	ND
1,1-DCE	***50.5***
1,4-Dioxane	***18.7***
1,1,1-TCA	ND
TCE	ND

MW-04	
1,1-DCA	***58.6***
1,2-DCA	1.3
1,1-DCE	***149***
1,4-Dioxane	***84.6***
1,1,1-TCA	1.4
TCE	1.2

MW-20	
1,1-DCA	***188***
1,2-DCA	***7.7***
1,1-DCE	***232***
1,4-Dioxane	***1,000***
1,1,1-TCA	ND
TCE	ND

MW-16	
1,1-DCA	***394***
1,2-DCA	ND
1,1-DCE	***571***
1,4-Dioxane	***39.2***
1,1,1-TCA	***487***
TCE	10.7

MW-01	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

MW-20	
1,1-DCA	***188***
1,2-DCA	***7.7***
1,1-DCE	***232***
1,4-Dioxane	***1,000***
1,1,1-TCA	ND
TCE	ND

WELL ID

CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)

CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1–DICHLOROETHANE
1,2-DCA	1,2–DICHLOROETHANE
1,1-DCE	1,1–DICHLOROETHENE
1,1,1-TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	
	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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SCALE IN FEET

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Drawn By: EGC
Checked: MML 7/28/2020
Approved: TKN 7/28/2020
DWG Name: 314V1545.010-056

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 7

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE SHALLOW UNCONFINED PORTION OF THE LOWER PATAPSCO AQUIFER (MAY 2020)

WSP USA Inc.
13530 DULLES TECHNOLOGY DR
SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

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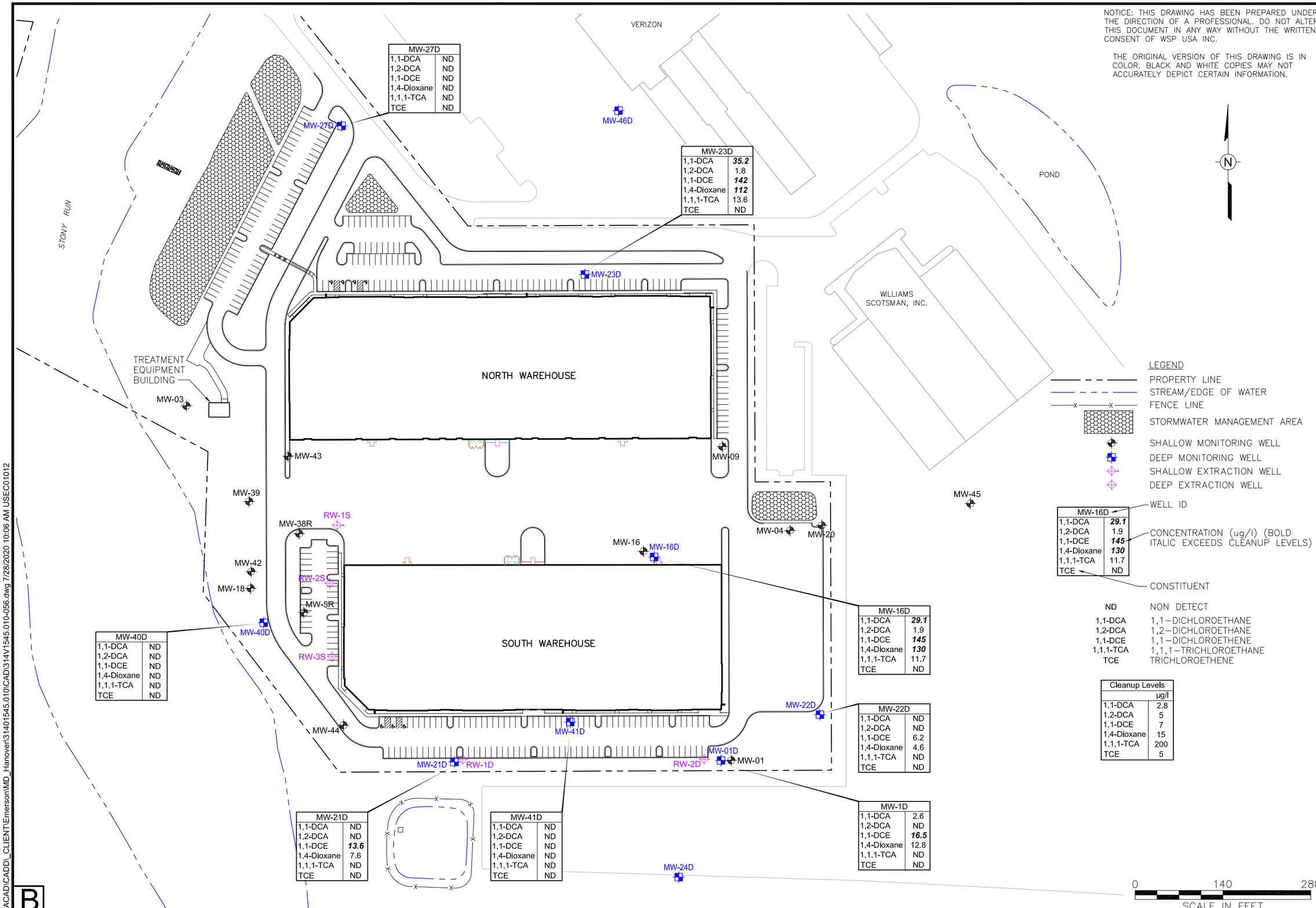

MW-27D	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

MW-23D	
1,1-DCA	***35.2***
1,2-DCA	1.8
1,1-DCE	***142***
1,4-Dioxane	***112***
1,1,1-TCA	13.6
TCE	ND

MW-40D	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

MW-16D	
1,1-DCA	***29.1***
1,2-DCA	1.9
1,1-DCE	***145***
1,4-Dioxane	***130***
1,1,1-TCA	11.7
TCE	ND

MW-22D	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	6.2
1,4-Dioxane	4.6
1,1,1-TCA	ND
TCE	ND

MW-21D	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	***13.6***
1,4-Dioxane	7.6
1,1,1-TCA	ND
TCE	ND

MW-41D	
1,1-DCA	ND
1,2-DCA	ND
1,1-DCE	ND
1,4-Dioxane	ND
1,1,1-TCA	ND
TCE	ND

MW-1D	
1,1-DCA	2.6
1,2-DCA	ND
1,1-DCE	***16.5***
1,4-Dioxane	12.8
1,1,1-TCA	ND
TCE	ND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

MW-16D	
1,1-DCA	***29.1***
1,2-DCA	1.9
1,1-DCE	***145***
1,4-Dioxane	***130***
1,1,1-TCA	11.7
TCE	ND

WELL ID

CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)

CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1-DICHLOROETHANE
1,2-DCA	1,2-DICHLOROETHANE
1,1-DCE	1,1-DICHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	
	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

Drawn By: EGC
Checked: MML 7/28/2020
Approved: RH 7/28/2020
DWG Name: 314V1545.010-056

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 8

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE DEEPER CONFINED PORTION OF THE LOWER PATAPSCO AQUIFER (MAY 2020)

WSP USA Inc.
13530 DULLES TECHNOLOGY DR
SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

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TABLES

Table 1

May 2020 Foulant Characterization Sampling Results
Former Kop-Flex Facility
Hanover, Maryland (a)

Sampling ID	Sampling Location	DRO	DRO - SGT	HEM	HEM - SGT	TOC	Fulvic Acid	Humic Acid
MW-01	Shallow Backround MW	<0.1	<0.1	<5.2	<5.2	0.91	1.7	0.23J
MW-27D	Deep Backround MW	0.12	<0.1	<5.2	<5.2	0.83	1.7	0.79
MW-100 (b)	Deep Backround MW	0.11	<0.1	<5.2	<5.2	1.3	1.8	0.2J
VSP-1S	Combined Shallow RW Discharge	<0.1	<0.1	<5.4	<5.4	1.3	2.2	0.66
VSP-1D	Combined Deep RW Discharge	<0.1	<0.1	<5.4	<5.4	0.61	2.0	0.66
VSP-100 (c)	Combined Deep RW Discharge	<0.1	<0.1	<5.3	<5.3	0.50	1.5	0.33J
T-1100	Lead Resin Vessel Effluent	<0.1	<0.1	<5.4	<5.4	0.24 J	1.6	0.33J
VSP-4	System Effluent	<0.1	<0.1	<5.2	<5.2	6.6	0.88	8.7

a/ MW = monitoring well; RW = recovery well
DRO = diesel range organics SGT = silica gel treatment; HEM = hexane extractable organic matter; TOC = total organics carbon
J Value indicates result is below method calibration limit, but above method detection limits
All sample concentrations are in milligrams per liter (mg/l)
b/ Duplicate of sample from well MW-27D.
c/ Duplicate of sample collected from VSP-1D sample port.

Table 2

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2020) (a)

			12/7/2016 (b)		2/1/2017 (b)		3/21/2017		4/7/2017		4/10/2017		4/13/2017	
Well ID	**Zone**	**TOC elevation**	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	NM	-	15.98	113.82	16.16	113.64	15.93	113.87	15.95	113.85	15.94	113.86
MW-03	Shallow	113.6	6.78	106.82	6.83	106.77	6.79	106.81	6.41	107.19	6.76	106.84	6.91	106.69
MW-04	Shallow	124.4	12.28	112.12	11.14	113.26	11.17	113.23	11.05	113.35	11.09	113.31	11.06	113.34
MW-5R	Shallow	123.5	15.87	107.63	13.49	110.01	15.98	107.52	16.15	107.35	16.38	107.12	16.45	107.05
MW-09	Shallow	125.1	10.84	114.26	11.30	113.80	11.51	113.59	11.41	113.69	11.41	113.69	11.51	113.59
MW-16	Shallow	124.0	10.92	113.08	11.12	112.88	11.66	112.34	11.74	112.26	11.81	112.19	11.82	112.18
MW-18	Shallow	125.1	20.77	104.33	20.84	104.26	22.85	102.25	22.85	102.25	23.11	101.99	23.18	101.92
MW-20	Shallow	125.4	NM	-	12.24	113.16	12.5	112.90	12.33	113.07	12.31	113.09	12.3	113.10
MW-38R	Shallow	125.4	15.58	109.82	15.76	109.64	19.64	105.76	19.6	105.80	20.81	104.59	19.81	105.59
MW-39	Shallow	124.6	NM	-	20.96	103.64	22.64	101.96	22.55	102.05	21.86	102.74	23	101.60
MW-42	Shallow	125.9	16.18	109.72	16.26	109.64	19.28	106.62	19.33	106.57	19.52	106.38	19.49	106.41
MW-43	Shallow	122.8	19.25	103.55	19.31	103.49	20.68	102.12	20.31	102.49	20.61	102.19	21.81	100.99
MW-44	Shallow	127.1	14.93	112.17	15.25	111.85	17.7	109.40	17.08	110.02	17.18	109.92	17.35	109.75
MW-45	Shallow	126.7	NM	-	NM	-	14.1	112.62	13.85	112.87	13.85	112.87	13.85	112.87
RW-1S	Shallow	122.9	12.96	109.94	13.17	109.73	12.96	109.94	20.36	102.54	20.6	102.30	20.56	102.34
RW-2S	Shallow	123.5	14.12	109.38	14.02	109.48	28.55	94.95	28.88	94.62	29.81	93.69	29	94.50
RW-3S	Shallow	125.4	14.29	111.11	14.24	111.16	20.34	105.06	23.49	101.91	23.59	101.81	23.69	101.71
MW-1D	Deep	129.4	42.81	86.59	42.22	87.18	56.15	73.25	56.06	73.34	56.22	73.18	56.44	72.96
MW-16D	Deep	124.1	34.91	89.19	34.72	89.38	37.55	86.55	37.6	86.50	38.02	86.08	38.1	86.00
MW-21D	Deep	126.3	37.8	88.50	37.59	88.71	47.12	79.18	47.26	79.04	47.57	78.73	47.61	78.69
MW-22D	Deep	128.9	40.78	88.07	40.49	88.36	43.28	85.57	43.3	85.55	43.59	85.26	43.76	85.09
MW-23D	Deep	125.2	35.14	90.06	34.74	90.46	36.33	88.87	36.29	88.91	36.72	88.48	36.81	88.39
MW-24D	Deep	129.1	46.3	82.80	45.73	83.37	47.44	81.66	47.71	81.39	48	81.10	48.16	80.94
MW-27D	Deep	117.2	29.66	87.54	26.78	90.42	27.73	89.47	27.68	89.52	28.18	89.02	28.3	88.90
MW-40D	Deep	124.1	35.14	88.96	34.94	89.16	37.19	86.91	37.51	86.59	37.98	86.12	37.98	86.12
MW-41D	Deep	127.1	41.98	85.12	41.44	85.66	44.00	83.10	44.06	83.04	44.48	82.62	44.56	82.54
MW-46D	Deep	124.8	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
RW-1D	Deep	126.9	38.53	88.37	38.19	88.71	58.69	68.21	59.02	67.88	59.06	67.84	59.02	67.88
RW-2D	Deep	127.4	42.31	85.09	41.62	85.78	68.82	58.58	68.51	58.89	68.39	59.01	68.78	58.62

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 2

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2020) (a)

			4/17/2017		5/1/2017		5/8/2017		8/31/2017		10/25/2017	
Well ID	**Zone**	**TOC elevation**	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	15.90	113.90	15.92	113.88	15.81	113.99	15.49	114.31	NA	NA
MW-03	Shallow	113.6	6.90	106.70	6.96	106.64	6.87	106.73	7.59	106.01	NA	NA
MW-04	Shallow	124.4	11.13	113.27	10.95	113.45	10.91	113.49	10.66	113.74	NA	NA
MW-5R	Shallow	123.5	16.47	107.03	16.60	106.90	16.60	106.90	16.90	106.60	NA	NA
MW-09	Shallow	125.1	11.48	113.62	11.41	113.69	11.34	113.76	11.09	114.01	NA	NA
MW-16	Shallow	124.0	12.08	111.92	11.99	112.01	11.81	112.19	11.90	112.10	NA	NA
MW-18	Shallow	125.1	23.19	101.91	23.30	101.80	23.28	101.82	24.63	100.47	NA	NA
MW-20	Shallow	125.4	13.38	112.02	13.01	112.39	12.24	113.16	12.39	113.01	NA	NA
MW-38R	Shallow	125.4	19.84	105.56	19.94	105.46	19.96	105.44	20.16	105.24	NA	NA
MW-39	Shallow	124.6	23.01	101.59	23.05	101.55	23.00	101.60	24.51	100.09	NA	NA
MW-42	Shallow	125.9	19.55	106.35	19.68	106.22	19.67	106.23	19.95	105.95	NA	NA
MW-43	Shallow	122.8	20.92	101.88	21.11	101.69	20.90	101.90	21.73	101.07	NA	NA
MW-44	Shallow	127.1	17.23	109.87	17.31	109.79	17.27	109.83	17.18	109.92	NA	NA
MW-45	Shallow	126.7	13.75	112.97	13.67	113.05	13.60	113.12	13.20	113.52	NA	NA
RW-1S	Shallow	122.9	20.60	102.30	20.80	102.10	20.79	102.11	21.49	101.41	NA	NA
RW-2S	Shallow	123.5	29.14	94.36	29.61	93.89	29.74	93.76	32.10	91.40	NA	NA
RW-3S	Shallow	125.4	23.73	101.67	24.32	101.08	24.46	100.94	26.20	99.20	NA	NA
MW-1D	Deep	129.4	56.37	73.03	56.40	73.00	56.29	73.11	56.70	72.70	58.17	71.23
MW-16D	Deep	124.1	37.94	86.16	37.98	86.12	38.08	86.02	41.1	83.00	40.71	83.39
MW-21D	Deep	126.3	47.58	78.72	47.54	78.76	47.61	78.69	56.7	69.60	50.61	75.69
MW-22D	Deep	128.9	43.73	85.12	43.82	85.03	43.81	85.04	46.71	82.14	46.74	82.11
MW-23D	Deep	125.2	36.61	88.59	36.71	88.49	36.77	88.43	39.9	85.30	39.21	85.99
MW-24D	Deep	129.1	48.29	80.81	48.35	80.75	48.37	80.73	55.82	73.28	52.15	76.95
MW-27D	Deep	117.2	28.03	89.17	28.21	88.99	28.21	88.99	31.11	86.09	30.52	86.68
MW-40D	Deep	124.1	37.85	86.25	38.01	86.09	38.04	86.06	41.00	83.10	40.75	83.35
MW-41D	Deep	127.1	44.43	82.67	44.61	82.49	44.62	82.48	49.18	77.92	47.94	79.16
MW-46D	Deep	124.8	NM	-	NM	-	NM	-	NM	-	NM	-
RW-1D	Deep	126.9	59.26	67.64	58.88	68.02	58.99	67.91	60.23	66.67	62.62	64.28
RW-2D	Deep	127.4	68.63	58.77	68.70	58.70	68.44	58.96	70.11	57.29	68.90	58.50

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 2

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to May 2020) (a)

			11/14/2017		5/30/2018		11/7/2018		5/21/2019		11/19/2019		5/12/2020	
Well ID	**Zone**	**TOC elevation**	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	14.17	115.63	15.52	114.28	13.99	115.81	13.98	115.82	16.47	113.33	15.67	114.13
MW-03	Shallow	113.6	7.27	106.33	7.17	106.43	6.43	107.17	7.08	106.52	7.02	106.58	6.09	107.51
MW-04	Shallow	124.4	10.97	113.43	10.19	114.21	9.16	115.24	8.80	115.60	11.07	113.33	11.00	113.40
MW-5R	Shallow	123.5	16.78	106.72	15.89	107.61	15.51	107.99	15.74	107.76	16.61	106.89	16.55	106.95
MW-09	Shallow	125.1	NA	NA	10.78	114.32	9.16	115.94	9.61	115.49	12.00	113.10	11.57	113.53
MW-16	Shallow	124.0	12.00	112.00	11.76	112.24	10.96	113.04	9.37	114.63	12.43	111.57	11.66	112.34
MW-18	Shallow	125.1	24.41	100.69	23.80	101.30	23.13	101.97	22.97	102.13	21.12	103.98	23.10	102.00
MW-20	Shallow	125.4	11.98	113.42	12.15	113.25	11.74	113.66	10.64	114.76	12.98	112.42	12.57	112.83
MW-38R	Shallow	125.4	19.93	105.47	19.35	106.05	18.67	106.73	19.13	106.27	19.83	105.57	19.03	106.37
MW-39	Shallow	124.6	23.93	100.67	23.72	100.88	23.09	101.51	23.00	101.60	23.94	100.66	23.04	101.56
MW-42	Shallow	125.9	19.82	106.08	19.16	106.74	18.55	107.35	18.91	106.99	19.44	106.46	18.85	107.05
MW-43	Shallow	122.8	21.66	101.14	20.47	102.33	20.60	102.20	21.46	101.34	22.04	100.76	20.98	101.82
MW-44	Shallow	127.1	17.00	110.10	16.32	110.78	15.78	111.32	15.91	111.19	17.24	109.86	16.30	110.80
MW-45	Shallow	126.7	13.80	112.92	12.98	113.74	12.00	114.72	11.75	114.97	14.55	112.17	NM	-
RW-1S	Shallow	122.9	21.98	100.92	22.88	100.02	23.97	98.93	26.42	96.48	28.64	94.26	29.16	93.74
RW-2S	Shallow	123.5	30.76	92.74	28.37	95.13	27.48	96.02	31.16	92.34	31.70	91.80	33.33	90.17
RW-3S	Shallow	125.4	28.47	96.93	26.91	98.49	24.39	101.01	22.10	103.30	23.24	102.16	22.85	102.55
MW-1D	Deep	129.4	58.09	71.31	58.03	71.37	57.22	72.18	56.55	72.85	59.49	69.91	57.17	72.23
MW-16D	Deep	124.1	40.63	83.47	40.37	83.73	39.33	84.77	38.30	85.80	40.99	83.11	38.67	85.43
MW-21D	Deep	126.3	50.53	75.77	50.38	75.92	49.61	76.69	48.38	77.92	50.75	75.55	48.50	77.80
MW-22D	Deep	128.9	46.25	82.60	46.30	82.55	35.31	93.54	44.02	84.83	46.20	82.65	44.05	84.80
MW-23D	Deep	125.2	39.04	86.16	38.87	86.33	37.72	87.48	36.88	88.32	39.40	85.80	37.16	88.04
MW-24D	Deep	129.1	51.99	77.11	50.94	78.16	50.72	78.38	49.67	79.43	51.12	77.98	48.80	80.30
MW-27D	Deep	117.2	30.34	86.86	30.20	87.00	29.17	88.03	28.15	89.05	30.68	86.52	28.64	88.56
MW-40D	Deep	124.1	40.50	83.60	40.44	83.66	39.60	84.50	38.50	85.60	41.16	82.94	38.59	85.51
MW-41D	Deep	127.1	47.71	79.39	47.56	79.54	46.56	80.54	45.42	81.68	48.50	78.60	45.28	81.82
MW-46D	Deep	124.8	NM	-	37.37	87.40	32.65	92.12	35.47	89.30	37.90	86.87	35.73	89.04
RW-1D	Deep	126.9	63.62	63.28	62.75	64.15	62.97	63.93	62.44	64.46	64.86	62.04	NM	-
RW-2D	Deep	127.4	68.95	58.45	69.21	58.19	68.34	59.06	68.19	59.21	71.36	56.04	69.35	58.05

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 3

May 2020 Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland (a)

				Shallow Wells													
	Well ID:	**MW-01**		**MW-03**	**MW-04**	**MW-5R**	**MW-09**	**MW-16**	**DUP051320 (d)**	**MW-18**	**MW-20**	**MW-38R**	**MW-39**	**MW-42**	**MW-43**	**MW-44**
Parameters	**Groundwater Cleanup Standards (µg/L) (b)**															
Chloroethane	2,100	1	U	1 U	1 U	1 U	1 U	10.9	25 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	2.8	1	U	1 U	**58.6**	1.8	2.6	**394**	**425**	1 U	**188**	**6.2**	1 U	1 U	**3.8**	**3.0**
1,2-Dichloroethane	5	1	U	1 U	1.3	1 U	1 U	5 U	5 U	1 U	**7.7**	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	7	1	U	1 U	**149**	1.7	**50.5**	**571**	**594**	1 U	**232**	1 U	1 U	1 U	**46.3**	4.1
1,4-Dioxane	15 (c)	2	U	2 U	**84.6**	13.4	**18.7**	**39.2**	**35**	2 U	**1,000**	**40.8**	2 U	11.2	**49**	**17.7**
Methyl tert-butyl ether	20	1	U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	2 U	1 U	1 U	1 U	3.4	1 U
1,1,1-Trichloroethane	200	1	U	1 U	1.4	1 U	1 U	**487**	**518**	1 U	2 U	1 U	1 U	1 U	1 U	11.9
Trichloroethene	5	1	U	1 U	1.2	1 U	1 U	**10.7**	**12**	1 U	2 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected above the method detection limit
Bolded values indicate an exceedance of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020:
https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/MDE%20Soil%20and%20Groundwater%20Cleanup%20Standards%2010-2018%20Interim%20Final%20Update%203-2.pdf
c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.
d/ DUP051320 is a duplicate of MW-16.

Table 3

May 2020 Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland (a)

				Deep Wells							
Well ID:		**MW-01**		**MW-1D**	**MW-16D**	**MW-21D**	**MW-22D**	**MW-23D**	**MW-27D**	**MW-40D**	**MW-41D**
Parameters	**Groundwater Cleanup Standards (µg/L) (b)**										
Chloroethane	2,100	1	U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	2.8	1	U	2.6	**29.1**	1 U	1 U	**35.2**	1 U	1 U	1 U
1,2-Dichloroethane	5	1	U	1 U	1.9	1 U	1 U	1.8	1 U	1 U	1 U
1,1-Dichloroethene	7	1	U	**16.5**	**145**	**13.6**	6.2	**142**	1 U	1 U	1 U
1,4-Dioxane	15 (c)	2	U	12.8	**130**	7.6	4.6	**112**	2 U	2 U	1 U
Methyl tert-butyl ether	20	1	U	1 U	1 U	2.9	1 U	1 U	1 U	3.1	1 U
1,1,1-Trichloroethane	200	1	U	1 U	11.7	1 U	1 U	13.6	1 U	1 U	1 U
Trichloroethene	5	1	U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

a/ U = not detected above the method detection limit
Bolded values indicate an exceedance of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020:
https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/MDE%20Soil%20and%20Groundwater%20Cleanup%20Standards%2010-2018%20Interim%20Final%20Update%203-2.pdf
c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.
d/ DUP051320 is a duplicate of MW-16.

Table 4

May 2020 Recovery Well Sampling Results
Former Kop-Flex Facility
Hanover, Maryland (a)

		Shallow Wells			Deep Wells	
	Well ID:	**RW-1S**	**RW-2S**	**RW-3S**	**RW-1D**	**RW-2D**
Parameters	**Groundwater Cleanup Standards (µg/L) (b)**					
VOCs						
Chloroethane	2,100	16.3	2 U	1 U	3.9	1 U
1,1-Dichloroethane	2.8	**98.2**	**24.9**	**3.4**	**48.4**	**21.4**
1,2-Dichloroethane	5	3.0	2 U	1 U	2 U	1.6
1,1-Dichloroethene	7	**447**	**140**	5.9	**202**	**145**
1,4-Dioxane	15 (c)	**298**	**99.8**	**17.2**	**81.8**	**78.2**
1,1,1-Trichloroethane	200	95.7	**232**	1 U	5.1	5.3
Trichloroethene	5	3.2	2 U	1 U	2 U	1 U
Vinyl chloride	2	3.6	2 U	1 U	2 U	1 U

a/ U = not detected above the method detection limit
Bolded values indicate an exceedance of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020: https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/doc

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2020) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-01	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U
MW-03	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-04	12/7/2016	10.0 U	**259**	10.0 U	**1,020**	10.0 U	**576**	20.0 U	4.0 U	31.7	10.0 U	10.0 U	10.0 U
	5/2/2017	4.0 U	**103**	4.0 U	**459**	4.0 U	**252**	8.0 U	4.0 U	13.0	4.0 U	4.0 U	4.0 U
	11/15/2017	5.0 U	**29.2**	1.0 J	**151**	1.0 U	**121**	**10.5**	0.687 J	4.3	1.0 U	1.4	1.0 U
	5/30/2018	1.0 U	**33.3**	1.0 U	**153**	1.0 U	**92.7**	2.0 U	1.0 U	4.0	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**23.3**	1.0 U	**89.9**	1.0 U	1.0 U	2.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**57.7**	1.1	**142**	1.0 U	**111**	5.0 U	1.0 U	1.7	1.0 U	1.1	1.0 U
	11/19/2019	1.0 U	**45.1**	1.1	**126**	1.0 U	**94.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**58.6**	1.3	**149**	1.0 U	**84.6**	5.0 U	1.0 U	1.4	1.2	1.0 U	1.0 U
MW-5R	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**16.5**	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.4	1.0 U	1.4	1.0 U	**16.5**	2.0 U	1.0 U	2.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.6	1.0 U	2.5	1.0 U	11.0	**10.2**	1.0 U	1.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.8	1.0 U	2.7	1.0 U	11.5	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.3	1.0 U	2.0 U	2.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.6	5.0 U	1.0 U	1.9	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/20202	1.0 U	1.8	1.0 U	1.7	1.0 U	13.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-09	12/8/2016	1.0 U	**4.5**	1.0 U	**104**	1.0 U	**95.5**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	**2.9**	1.0 U	**63.8**	1.0 U	**20.8**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**3.1**	0.4 J	**60.2**	1.0 U	**32.4**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	2.2	1.0 U	**49.2**	1.0 U	**23.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**4.5**	1.0 U	**75.9**	1.0 U	**37.4**	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**3.6**	1.0 U	**70.8**	1.0 U	**32.8**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	2.6	1.0 U	**48.7**	1.0 U	**24.4**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	2.6	1.0 U	**50.5**	1.0 U	**18.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-16	12/8/2016	200 U	**6,420**	200 U	**26,200**	200 U	**1,450**	400 U	100 U	**4,390**	200 U	200 U	200 U
	5/2/2017	225	**7,910**	100 U	**10,500**	100 U	**971**	200 U	100 U	**8,930**	100 U	100 U	100 U
	11/15/2017	732	**7,110**	**22**	**7,740**	46	**836**	**11**	**18.4**	**5,590**	1.0 U	**69**	**19**
	5/30/2018	249	**6,250**	50 U	**4,690**	50 U	**636**	100 U	50 U	**7,360**	50 U	50 U	50 U
	11/7/2018	275	**7,360**	50 U	**7,800**	50 U	**866**	100 U	50 U	**6,420**	50 U	**74.2**	50 U
	5/22/2019	10 U	**343**	10 U	**1,160**	10 U	**1,230**	50 U	10 U	**216**	10 U	**13.7**	10 U
	11/19/2019	23.4	**608**	10 U	**1,440**	10 U	**81.9**	50 U	10 U	**314**	10 U	**18.3**	10 U
	5/13/2020	10.9	**394**	5 U	**571**	5 U	**39.2**	5 U	5 U	**487**	5 U	**10.7**	5 U
MW-18	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**24.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2020) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-20	12/9/2016	2.0 U	**99.7**	**5.1**	**173**	2.0 U	**767**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**161**	**7.3**	**286**	2.0 U	**967**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**136**	**5.7**	**223**	1.4	**969**	5.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U
	5/30/2018	2.0 U	**115**	**5.5**	**205**	2.0 U	**966**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/7/2018	2.5 U	**145**	**6.3**	**233**	2.5 U	**986**	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
	5/21/2019	2.0 U	**157**	**6.5**	**226**	2.0 U	**1,620**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/19/2019	2.0 U	**175**	**7.5**	**244**	2.0 U	**1,220**	10.0 U	2.0 U	2.0 U	2.1	2.0 U	2.0 U
	5/13/2020	2.0 U	**188**	**7.7**	**232**	2.0 U	**1,000**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
MW-38R	12/9/2016	1.0 U	**3.8**	1.0 U	1.0 U	1.0 U	**18.3**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.0**	1.0 U	1.0 U	1.0 U	**42.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**8.3**	1.0 U	1.0 U	1.0 U	**62.5**	**8.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	**4.3**	1.0 U	1.0 U	1.0 U	**40.7**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**6.9**	1.0 U	1.0 U	1.0 U	**39.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**4.7**	1.0 U	1.0 U	1.0 U	**43.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**7.7**	1.0 U	1.0 U	1.0 U	**51.5**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	**6.2**	1.0 U	1.0 U	1.0 U	**40.8**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-39	12/7/2016	1.0 U	1.0 U	1.0 U	1.7	1.0 U	2.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.1	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	0.6 J	1.0 U	2.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-42	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.8	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**19.3**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.4	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.3	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-43	12/7/2016	2.0 U	**15.9**	2.1	**171**	2.0 U	**237**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**21.3**	2.1	**177**	2.0 U	**206**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**15.9**	1.3	**159**	1.0 U	**165**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	5/30/2018	2.0 U	**5.9**	1.0 U	**68**	1.0 U	**57.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**13.8**	1.2	**118**	1.0 U	**107**	2.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U
	5/21/2019	1.0 U	**5.2**	1.0 U	**53.9**	1.0 U	**52.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**4.3**	1.0 U	**48.5**	1.0 U	**55.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	**3.8**	1.0 U	**46.3**	1.0 U	**49.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-44	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.6**	1.0 U	5.9	1.0 U	**49.1**	2.0 U	1.0 U	27.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.4	1.0 U	1.4	1.0 U	8.4	2.0 U	1.0 U	4.9	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**14.9**	1.0 U	**22.4**	1.0 U	**64.4**	5.0 U	1.0 U	74.3	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**3.0**	1.0 U	4.1	1.0 U	**17.7**	5.0 U	1.0 U	11.9	1.0 U	1.0 U	1.0 U
MW-1D	1/2/2017	2.0 U	**72**	4.7	**375**	2.0 U	**236**	4.0 U	2.5 U	37.5	2.0 U	2.0 U	2.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2020) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
	5/3/2017	2.5 U	**105**	**5.7**	**407**	2.5 U	**329**	5.0 U	2.5 U	37.1	2.5 U	2.5 U	2.5 U
	11/15/2017	5.0 U	**80**	3.8	**277**	0.6 J	**243**	5.0 U	0.519 J	29.8	0.8 J	1.7	1 U
	5/30/2018	1.0 U	**14.9**	1.0 U	**71.4**	1.0 U	**64.4**	2.0 U	1.0 U	5.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**7.1**	1.0 U	**38.8**	1.0 U	2.0 U	2.0 U	1.0 U	3.3	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	2.1	1.0 U	**13.7**	1.0 U	12.8	5.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**3.4**	1.0 U	**17.7**	1.0 U	**17.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	2.6	1.0 U	**16.5**	1.0 U	12.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-16D	12/8/2016	2.0 U	**56.6**	2.9	**254**	2.0 U	**202**	4.0 U	2.0 U	21	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**43.7**	2.9	**235**	2.0 U	**182**	4.0 U	2.0 U	16.4	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**29.7**	1.9	**179**	0.3 J	**192**	**10.0**	1.0 U	15.1	0.5 J	0.9 J	1.0 U
	5/30/2018	1.0 U	**26.4**	1.6	**180**	1.0 U	**153**	2.0 U	1.0 U	10.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**27.5**	1.8	**161**	1.0 U	**158**	2.0 U	1.0 U	12.5	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	**28.5**	2.1	**172**	1.0 U	**148**	5.0 U	1.0 U	14.5	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**25.6**	1.7	**133**	1.0 U	**140**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**29.1**	1.9	**145**	1.0 U	**130**	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
MW-21D	12/16/2016	1.0 U	2.6	1.0 U	**23.4**	1.0 U	**18.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.9**	1.4	**111**	1.0 U	**57.5**	2.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	2.0	1.0 U	**14.4**	1.0 U	**18.5**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0	1.0 U	**38.8**	1.0 U	**32.2**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**30.0**	1.0 U	**18.0**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	**9.9**	1.0 U	8.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	4.1	1.0 U	4.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	**13.6**	1.0 U	7.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-22D	12/7/2016	1.0 U	2.5	1.0 U	**31.5**	1.0 U	**24.5**	2.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	2.5	1.0 U	**36.9**	1.0 U	**24.6**	2.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.72	1.0 U	**24.4**	1.0 U	**19.6**	5.0 U	1.0 U	2.8	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	**13.1**	1.0 U	7.9	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**9.7**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	6.3	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	5.6	1.0 U	4.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	6.2	1.0 U	4.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-23D	1/2/2017	2.0 U	**26.4**	2.0 U	**140**	2.0 U	**151**	**8.3**	1.0 U	17.0	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**39.1**	2.4	**208**	2.0 U	**177**	4.0 U	2.0 U	19.9	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**31.1**	1.9	**179**	0.3 J	**158**	5.0 U	0.417 J	19.3	0.4 J	0.9 J	1.0 U
	5/30/2018	1.0 U	**30.5**	1.6	**172**	1.0 U	**148**	2.0 U	1.0 U	14.8	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**36.2**	1.9	**185**	1.0 U	**146**	2.0 U	1.0 U	17.0	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**18.5**	1.2	**96.4**	1.0 U	**70.7**	5.0 U	1.0 U	8.6	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**22.7**	1.4	**107**	1.0 U	**109**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**35.2**	1.8	**142**	1.0 U	**112**	5.0 U	1.0 U	13.6	1.0 U	1.0 U	1.0 U
MW-27D	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - May 2020) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-40D	12/9/2016	1.0 U	**2.9**	1.0 U	**18.1**	1.0 U	9.4	2.0 U		1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**3.1**	1.0 U	**17.4**	1.0 U	8.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	0.9 J	1.0 U	5.2	1.0 U	5.2	**9.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	2.9	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	4.4	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-41D	12/16/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.8	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/17/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.4	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.1	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

a/ U = not detected above the method detection limit
Bolded values indicate an exceedance of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020: https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/MDE
c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

ENCLOSURE A – LABORATORY ANALYTICAL REPORTS, 1,4-DIOXANE BREAKTHROUGH ASSESSMENT SAMPLING (APRIL AND MAY 2020)

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Certificate of Analysis

Project Name: Kop Flex
PSS Project No.: 20050113

May 15, 2020

Eric Johnson
WSP USA - Herndon
13530 Dulles Technology Dr, Ste 300
Herndon, VA 20171

Reference: PSS Project No: **20050113**
Project Name: Kop Flex
Project Location: Hanover, MD
Project ID.: 31401545.010/.4

Dear Eric Johnson:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20050113**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on June 5, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

PHASE SEPARATION SCIENCE

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Explanation of Qualifiers

Project Name: Kop Flex
PSS Project No.: 20050113

Project ID: 31401545.010/.4

The following samples were received under chain of custody by Phase Separation Science (PSS) on 05/01/2020 at 01:00 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
20050113-001	T-1100 Lead Effluent-1	WASTE WATER	04/27/20 15:00
20050113-002	T-1100 Lead Effluent-2	WASTE WATER	04/28/20 17:00
20050113-003	T-1100 Lead Effluent-3	WASTE WATER	04/29/20 06:00
20050113-004	T-1100 Lead Effluent-4	WASTE WATER	04/29/20 11:00
20050113-005	Trip Blank	WATER	05/01/20 13:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: Kop Flex
PSS Project No.: 20050113

Sample ID: T-1100 Lead Effluent-1 **Date/Time Sampled: 04/27/2020 15:00** **PSS Sample ID: 20050113-001**
Matrix: WASTE WATER **Date/Time Received: 05/01/2020 13:00**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	**6.9**	ug/L	1.0		1	05/11/20	05/11/20 17:18	1045
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*88*	*%*	*80-120*		*1*	*05/11/20*	*05/11/20 17:18*	*1045*

Sample ID: T-1100 Lead Effluent-2 **Date/Time Sampled: 04/28/2020 17:00** **PSS Sample ID: 20050113-002**
Matrix: WASTE WATER **Date/Time Received: 05/01/2020 13:00**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	**13**	ug/L	1.0		1	05/11/20	05/11/20 17:40	1045
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*88*	*%*	*80-120*		*1*	*05/11/20*	*05/11/20 17:40*	*1045*

Sample ID: T-1100 Lead Effluent-3 **Date/Time Sampled: 04/29/2020 06:00** **PSS Sample ID: 20050113-003**
Matrix: WASTE WATER **Date/Time Received: 05/01/2020 13:00**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	**16**	ug/L	1.0		1	05/11/20	05/11/20 18:03	1045
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*88*	*%*	*80-120*		*1*	*05/11/20*	*05/11/20 18:03*	*1045*

Sample ID: T-1100 Lead Effluent-4 **Date/Time Sampled: 04/29/2020 11:00** **PSS Sample ID: 20050113-004**
Matrix: WASTE WATER **Date/Time Received: 05/01/2020 13:00**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	**17**	ug/L	1.0		1	05/11/20	05/11/20 18:25	1045
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*85*	*%*	*80-120*		*1*	*05/11/20*	*05/11/20 18:25*	*1045*

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Certificate of Analysis

Project Name: Kop Flex
PSS Project No.: 20050113

Sample ID: Trip Blank **Date/Time Sampled: 05/01/2020 13:00** **PSS Sample ID: 20050113-005**
Matrix: WATER **Date/Time Received: 05/01/2020 13:00**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	ND	ug/L	1.0		1	05/11/20	05/11/20 18:47	1045
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*88*	*%*	*80-120*		*1*	*05/11/20*	*05/11/20 18:47*	*1045*

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Project Name: Kop Flex

PSS Project No.: 20050113

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Received Trip Blanks that were not on the COC. Logged in for 1,4 dioxane by method 8260.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

SW-846 8260 B-Modified: 1,4-Dioxane

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Lab Chronology

Project Name: Kop Flex
PSS Project No.: 20050113

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
SW-846 8260 B-Modified	T-1100 Lead Effluent-1	Initial	20050113-001	W	81467	174294	05/11/2020 12:50	05/11/2020 17:18
	T-1100 Lead Effluent-2	Initial	20050113-002	W	81467	174294	05/11/2020 12:50	05/11/2020 17:40
	T-1100 Lead Effluent-3	Initial	20050113-003	W	81467	174294	05/11/2020 12:50	05/11/2020 18:03
	T-1100 Lead Effluent-4	Initial	20050113-004	W	81467	174294	05/11/2020 12:50	05/11/2020 18:25
	Trip Blank	Initial	20050113-005	W	81467	174294	05/11/2020 12:50	05/11/2020 18:47
	81467-1-BKS	BKS	81467-1-BKS	W	81467	174294	05/11/2020 12:50	05/11/2020 14:42
	81467-1-BLK	BLK	81467-1-BLK	W	81467	174294	05/11/2020 12:50	05/11/2020 16:56
	81467-1-BSD	BSD	81467-1-BSD	W	81467	174294	05/11/2020 12:50	05/11/2020 15:04

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QC Summary

Project Name Kop Flex
PSS Project No.: 20050113

Analytical Method: SW-846 8260 B-Modified Prep Method: SW5030B
Seq Number: 174294 Matrix: Water Date Prep: 05/11/20
MB Sample Id: 81467-1-BLK LCS Sample Id: 81467-1-BKS LCSD Sample Id: 81467-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
1,4-Dioxane (P-Dioxane)	<1.000	30.00	25.15	84	25.57	85	50-150	1	20	ug/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
Toluene-D8	89		89		90		80-120	%

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

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CHAIN OF CUSTODY FORM

All fields must be completed accurately. Shaded sections for lab use only.

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①

PSS CLIENT: WSP	OFFICE LOCATION: Herndon, VA	PSS Work Order #: 20050113	PAGE 1 OF 1
BILL TO (if different):	PHONE #: 703-709-6500		
CONTACT: Eric Johnson	EMAIL: eric.johnson@wsp.com		
PROJECT NAME: Kop Flex	PROJECT #: 31401545.010/04		
SITE LOCATION: Hanover, MD	P.O. #:		
SAMPLER(S): Shannon Burke	DW CERT #:		

Matrix Codes: **SW**=Surface Water **DW**=Drinking Water **GW**=Ground Water **WW**=Waste Water **O**=Oil **S**=Soil **SOL**=Solid **A**=Air **WI**=Wipe

②

PSS ID	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX Use Codes	# OF CONTAINERS	SAMPLE TYPE: C=COMPOSITE G=GRAB	1,4-dioxane 8260B SIM										
Preservatives Use Codes							HCl										
1	T-1100 Lead Effluent-1	4/27/20	1500	WW	3	G	X										
2	T-1100 Lead Effluent-2	4/28/20	1700	WW	3	G	X										
3	T-1100 Lead Effluent-3	4/29/20	0600	WW	3	G	X										
4	T-1100 Lead Effluent-4	4/29/20	1100	WW	3	G	X										
	~~T-1100 Lead Effluent-5~~	~~4/29/20~~		~~WW~~	~~3~~	~~G~~	~~X~~	SLB									
	~~T-1100 Lead Effluent-6~~	~~4/29/20~~		~~WW~~	~~3~~	~~G~~	~~X~~	SLB									

③ Preservative Codes: 1 - HCL; 2 - H_2SO_4; 3 - HNO_3; 4 - NaOH; 5 - E624KIT; 6 - ICE; 7 - Sodium Thiosulfate; 8 - Ascorbic Acid; 9 - TerraCore Kit

⑤

Relinquished By:	Date	Time	Received By:
(1) Shannon Burke	5/1/20	1010	
(2)	5/1/20	1300	
(3)			
(4)			

④

Requested TAT (One TAT per COC): ☐ 5-Day ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☒ Other

STATE RESULTS REPORTED TO: ☐ MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER

COMPLIANCE? ☐ DW ☐ WW

EDD FORMAT TYPE

Ice Present: PRES

Custody Seal: ABS

Coolers: 1 TB: 2.2°C Temp: 2.2 - 2.2°C

Shipping Carrier: TIE

Special Instructions: Standard 10-day TAT

This chain of custody is a legal document. The client (PSS Client), by signing, or having client's agent sign, this "Chain of Custody Form", agrees to pay for the above requested services per the latest version of the Service Brochure of PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary.

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Sample Receipt Checklist

Project Name: Kop Flex
PSS Project No.: 20050113

Client Name	WSP USA - Herndon	**Received By**	Thomas Wingate
Disposal Date	06/05/2020	**Date Received**	05/01/2020 01:00:00 PM
		Delivered By	Trans Time Express
		Tracking No	Not Applicable
		Logged In By	Thomas Wingate

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	N/A	Temp (deg C)	2.3
Seal(s) Signed / Dated?	N/A	Temp Blank Present	Yes

Documentation

		Sampler Name	Shannon Burke
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	5
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	14

Preservation

Total Metals	(pH<2)	N/A
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Received Trip Blanks that were not on the COC. Logged in for 1,4 dioxane by method 8260.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 05/01/2020

PM Review and Approval: Thomas Wingate — Date: 05/01/2020

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 20051204

May 27, 2020

Eric Johnson
WSP USA - Herndon
13530 Dulles Technology Dr, Ste 300
Herndon, VA 20171

Reference: PSS Project No: **20051204**
Project Name: Kop-Flex
Project Location: Hanover, MD
Project ID.: 31401545.010/04

Dear Eric Johnson:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20051204**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on June 16, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager

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Explanation of Qualifiers

Project Name: Kop-Flex
PSS Project No.: 20051204

Project ID: 31401545.010/04

The following samples were received under chain of custody by Phase Separation Science (PSS) on 05/12/2020 at 10:35 am

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
20051204-001	T-1100 Lead Effluent-5	WASTE WATER	05/11/20 14:30
20051204-002	T-1100 Lead Effluent-6	WASTE WATER	05/11/20 21:00
20051204-003	T-1100 Lead Effluent-7	WASTE WATER	05/12/20 07:00
20051204-004	TB-051120	WATER	05/11/20 00:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

B	A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
C	Results Pending Final Confirmation.
E	The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
Fail	The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
J	The target analyte was positively identified below the reporting limit but greater than the MDL.
MDL	This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
ND	Not Detected at or above the reporting limit.
RL	PSS Reporting Limit.
U	Not detected.

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

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Certificate of Analysis

Project Name: Kop-Flex
PSS Project No.: 20051204

Sample ID: T-1100 Lead Effluent-5 **Date/Time Sampled: 05/11/2020 14:30** **PSS Sample ID: 20051204-001**
Matrix: WASTE WATER **Date/Time Received: 05/12/2020 10:35**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	**17**	ug/L	1.0		1	05/20/20	05/20/20 16:53	1011
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*101*	*%*	*80-120*		*1*	*05/20/20*	*05/20/20 16:53*	*1011*

Sample ID: T-1100 Lead Effluent-6 **Date/Time Sampled: 05/11/2020 21:00** **PSS Sample ID: 20051204-002**
Matrix: WASTE WATER **Date/Time Received: 05/12/2020 10:35**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	**20**	ug/L	1.0		1	05/20/20	05/20/20 16:30	1011
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*93*	*%*	*80-120*		*1*	*05/20/20*	*05/20/20 16:30*	*1011*

Sample ID: T-1100 Lead Effluent-7 **Date/Time Sampled: 05/12/2020 07:00** **PSS Sample ID: 20051204-003**
Matrix: WASTE WATER **Date/Time Received: 05/12/2020 10:35**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	**28**	ug/L	1.0		1	05/20/20	05/20/20 16:08	1011
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*97*	*%*	*80-120*		*1*	*05/20/20*	*05/20/20 16:08*	*1011*

Sample ID: TB-051120 **Date/Time Sampled: 05/11/2020 00:00** **PSS Sample ID: 20051204-004**
Matrix: WATER **Date/Time Received: 05/12/2020 10:35**

1,4-Dioxane by GC/MS - SIM Analytical Method: SW-846 8260 B-Modified Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,4-Dioxane (P-Dioxane)	ND	ug/L	1.0		1	05/20/20	05/20/20 15:46	1011
Surrogate(s)	***Recovery***		***Limits***					
Toluene-D8	*97*	*%*	*80-120*		*1*	*05/20/20*	*05/20/20 15:46*	*1011*

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Project Name: Kop-Flex

PSS Project No.: 20051204

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

All sample receipt conditions were acceptable.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

SW-846 8260 B-Modified: 1,4-Dioxane

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Lab Chronology

Project Name: Kop-Flex
PSS Project No.: 20051204

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
SW-846 8260 B-Modified	T-1100 Lead Effluent-5	Initial	20051204-001	W	81620	174615	05/20/2020 10:16	05/20/2020 16:53
	T-1100 Lead Effluent-6	Initial	20051204-002	W	81620	174615	05/20/2020 10:16	05/20/2020 16:30
	T-1100 Lead Effluent-7	Initial	20051204-003	W	81620	174615	05/20/2020 10:16	05/20/2020 16:08
	TB-051120	Initial	20051204-004	W	81620	174615	05/20/2020 10:16	05/20/2020 15:46
	81620-1-BKS	BKS	81620-1-BKS	W	81620	174615	05/20/2020 10:16	05/20/2020 13:54
	81620-1-BLK	BLK	81620-1-BLK	W	81620	174615	05/20/2020 10:16	05/20/2020 15:23
	81620-1-BSD	BSD	81620-1-BSD	W	81620	174615	05/20/2020 10:16	05/20/2020 14:17

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QC Summary

Project Name Kop-Flex
PSS Project No.: 20051204

Analytical Method: SW-846 8260 B-Modified Prep Method: SW5030B
Seq Number: 174615 Matrix: Water Date Prep: 05/20/20
MB Sample Id: 81620-1-BLK LCS Sample Id: 81620-1-BKS LCSD Sample Id: 81620-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
1,4-Dioxane (P-Dioxane)	<1.000	30.00	30.22	101	32.57	109	50-150	8	20	ug/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
Toluene-D8	93		98		99		80-120	%

F = RPD exceeded the laboratory control limits
X = Recovery of MS, MSD or both outside of QC Criteria
H= Recovery of BS,BSD or both exceeded the laboratory control limits
L = Recovery of BS,BSD or both below the laboratory control limits

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

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(1)
*CLIENT: WSP *OFFICE LOC. Herndon, VA
*PROJECT MGR: Eric Johnson *PHONE NO.: (703) 709-6500
EMAIL: eric.johnson@wsp.com FAX NO.: ( )
*PROJECT NAME: Kop Flex PROJECT NO.: 31401545.010/04
SITE LOCATION: Hanover, MD P.O. NO.:
SAMPLER(S): Shannon Burke DW CERT NO.:

PSS Work Order #: 20051204 PAGE 1 OF 1

Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil L=Liquid SOL=Solid A=Air WI=Wipe

(2)

LAB NO.	*SAMPLE IDENTIFICATION	*DATE (SAMPLED)	*TIME (SAMPLED)	MATRIX (See Codes)	No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	Preservatives Used: HCl	Analysis/ Method Required (3) * 1,4-dioxane (8260B SIM)	REMARKS
1	T-1100 Lead Effluent-5	5/11/20	1430	WW	3	G		X	
2	T-1100 Lead Effluent-6	5/11/20	2100	WW	3	G		X	
3	T-1100 Lead Effluent-7	5/12/20	0700	WW	3	G		X	
4	TB-051120	5/11/20	—	W	2	—		X	Trip blank

(5)

Relinquished By:	Date	Time	Received By:
(1) Shannon Burke	5/12/20	1035	[signature]
(2)			
(3)			
(4)			

(4)
*Requested TAT (One TAT per COC): ☐ 5-Day ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☒ Other

Data Deliverables Required: COA ☐ QC SUMM ☐ CLP LIKE ☐ OTHER _____

Special Instructions: Standard 10-day TAT

DW COMPLIANCE? YES ☐ EDD FORMAT TYPE _____

STATE RESULTS REPORTED TO: MD ☐ DE ☐ PA ☐ VA ☐ WV ☐ OTHER _____

# of Coolers: 1 TB: 1.1°C
Custody Seal: Cooler Intact
Ice Present: PRES Temp: 0.9°-1.1°C
Shipping Carrier: [signature]

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

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Sample Receipt Checklist

Project Name: Kop-Flex
PSS Project No.: 20051204

Client Name	WSP USA - Herndon	**Received By**	Thomas Wingate
Disposal Date	06/16/2020	**Date Received**	05/12/2020 10:35:00 AM
		Delivered By	Client
		Tracking No	Not Applicable
		Logged In By	Thomas Wingate

Shipping Container(s)

No. of Coolers 1

		Ice	Present
Custody Seal(s) Intact?	Yes	Temp (deg C)	1.1
Seal(s) Signed / Dated?	Yes	Temp Blank Present	Yes

Documentation

		Sampler Name	Shannon Burke
COC agrees with sample labels?	Yes	MD DW Cert. No.	N/A
Chain of Custody	Yes		

Sample Container

		Custody Seal(s) Intact?	Not Applicable
Appropriate for Specified Analysis?	Yes	Seal(s) Signed / Dated	Not Applicable
Intact?	Yes		
Labeled and Labels Legible?	Yes		

Holding Time

		Total No. of Samples Received	4
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	11

Preservation

Total Metals	(pH<2)	N/A
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	Yes
Do VOA vials have zero headspace?		Yes
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 05/12/2020

PM Review and Approval: Amber Confer — Date: 05/12/2020

ENCLOSURE B – LABORATORY ANALYTICAL REPORTS, MAY 2020 FOULANT CHARACTERIZATION SAMPLING

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-2314-1
Client Project/Site: Former Kop-Flex Facility Site

For:
WSP USA Corp.
Attn: Environmental Accounts Payable
13530 Dulles Technology Drive
Suite 300
Herndon, Virginia 20171

Attn: Eric Johnson

Authorized for release by:
6/17/2020 1:55:53 PM

Hannah Cottman, Operations Support Specialist
(717)556-7383
hannahcottman@eurofinsus.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Hannah Cottman
Operations Support Specialist
6/17/2020 1:55:53 PM

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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-2314-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-2314-1

Receipt
The samples were received on 5/14/2020 5:30 PM; the samples arrived in good condition, properly preserved, and where required, on ice. The temperatures of the 5 coolers at receipt time were 0.5°C, 0.7°C, 0.9°C, 1.4°C and 1.7°C

SUBCONTRACTING

The following analysis was subcontracted to ALS Environmental:
Subcontracted Analysis - Total Organic Carbon

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: MW-01 — Lab Sample ID: 410-2314-1

Sample Analysis Not Complete.

Client Sample ID: MW-27D — Lab Sample ID: 410-2314-2

Sample Analysis Not Complete.

Client Sample ID: VSP-1D — Lab Sample ID: 410-2314-3

Sample Analysis Not Complete.

Client Sample ID: VSP-1S — Lab Sample ID: 410-2314-4

Sample Analysis Not Complete.

Client Sample ID: VSP-4 — Lab Sample ID: 410-2314-5

Sample Analysis Not Complete.

Client Sample ID: T-1100 — Lab Sample ID: 410-2314-6

Sample Analysis Not Complete.

Client Sample ID: VSP-100 — Lab Sample ID: 410-2314-7

Sample Analysis Not Complete.

Client Sample ID: MW-100 — Lab Sample ID: 410-2314-8

Sample Analysis Not Complete.

Client Sample ID: EB-051320 — Lab Sample ID: 410-2314-9

Sample Analysis Not Complete.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: MW-01

Lab Sample ID: 410-2314-1
Date Collected: 05/14/20 10:18
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/20/20 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*87*		*50 - 150*	*05/20/20 08:54*	*05/20/20 21:30*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/26/20 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.00005*		*0 - 1*	*05/20/20 08:54*	*05/26/20 22:36*	*1*
o- terphenyl (Surr) (1C)	*64*		*50 - 150*	*05/20/20 08:54*	*05/26/20 22:36*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.2		5.2		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.2		5.2		mg/L			05/18/20 16:16	1

Client Sample ID: MW-27D

Lab Sample ID: 410-2314-2
Date Collected: 05/13/20 14:55
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	**120**		100		ug/L		05/20/20 08:54	05/20/20 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*88*		*50 - 150*	*05/20/20 08:54*	*05/20/20 21:52*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/26/20 22:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.0002*		*0 - 1*	*05/20/20 08:54*	*05/26/20 22:59*	*1*
o- terphenyl (Surr) (1C)	*65*		*50 - 150*	*05/20/20 08:54*	*05/26/20 22:59*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.2		5.2		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.2		5.2		mg/L			05/18/20 16:16	1

Client Sample ID: VSP-1D

Lab Sample ID: 410-2314-3
Date Collected: 05/14/20 10:00
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/20/20 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*88*		*50 - 150*	*05/20/20 08:54*	*05/20/20 22:15*	*1*

Client Sample Results

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: VSP-1D

Lab Sample ID: 410-2314-3
Date Collected: 05/14/20 10:00
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/26/20 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.003*		*0 - 1*	*05/20/20 08:54*	*05/26/20 23:21*	*1*
o- terphenyl (Surr) (1C)	*64*		*50 - 150*	*05/20/20 08:54*	*05/26/20 23:21*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.4		5.4		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.4		5.4		mg/L			05/18/20 16:16	1

Client Sample ID: VSP-1S

Lab Sample ID: 410-2314-4
Date Collected: 05/14/20 10:25
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/20/20 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*83*		*50 - 150*	*05/20/20 08:54*	*05/20/20 22:38*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/26/20 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.0002*		*0 - 1*	*05/20/20 08:54*	*05/26/20 23:44*	*1*
o- terphenyl (Surr) (1C)	*62*		*50 - 150*	*05/20/20 08:54*	*05/26/20 23:44*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.4		5.4		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.4		5.4		mg/L			05/18/20 16:16	1

Client Sample ID: VSP-4

Lab Sample ID: 410-2314-5
Date Collected: 05/14/20 09:10
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/20/20 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*82*		*50 - 150*	*05/20/20 08:54*	*05/20/20 23:00*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/27/20 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.0001*		*0 - 1*	*05/20/20 08:54*	*05/27/20 00:07*	*1*
o- terphenyl (Surr) (1C)	*63*		*50 - 150*	*05/20/20 08:54*	*05/27/20 00:07*	*1*

Client Sample Results

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: VSP-4

Lab Sample ID: 410-2314-5
Date Collected: 05/14/20 09:10
Matrix: Water
Date Received: 05/14/20 17:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.2		5.2		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.2		5.2		mg/L			05/18/20 16:16	1

Client Sample ID: T-1100

Lab Sample ID: 410-2314-6
Date Collected: 05/14/20 09:35
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/20/20 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*81*		*50 - 150*	*05/20/20 08:54*	*05/20/20 23:23*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/27/20 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.001*		*0 - 1*	*05/20/20 08:54*	*05/27/20 00:29*	*1*
o- terphenyl (Surr) (1C)	*63*		*50 - 150*	*05/20/20 08:54*	*05/27/20 00:29*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.4		5.4		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.4		5.4		mg/L			05/18/20 16:16	1

Client Sample ID: VSP-100

Lab Sample ID: 410-2314-7
Date Collected: 05/14/20 08:00
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/20/20 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*83*		*50 - 150*	*05/20/20 08:54*	*05/20/20 23:46*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/27/20 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.003*		*0 - 1*	*05/20/20 08:54*	*05/27/20 00:52*	*1*
o- terphenyl (Surr) (1C)	*67*		*50 - 150*	*05/20/20 08:54*	*05/27/20 00:52*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.3		5.3		mg/L			05/21/20 18:53	1
SGT-HEM (TPH)	<5.3		5.3		mg/L			05/21/20 18:53	1

Client Sample Results

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: MW-100

Lab Sample ID: 410-2314-8
Date Collected: 05/13/20 08:00
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	110		100		ug/L		05/20/20 08:54	05/21/20 00:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*82*		*50 - 150*	*05/20/20 08:54*	*05/21/20 00:08*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/27/20 01:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.003*		*0 - 1*	*05/20/20 08:54*	*05/27/20 01:15*	*1*
o- terphenyl (Surr) (1C)	*67*		*50 - 150*	*05/20/20 08:54*	*05/27/20 01:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.2		5.2		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.2		5.2		mg/L			05/18/20 16:16	1

Client Sample ID: EB-051320

Lab Sample ID: 410-2314-9
Date Collected: 05/13/20 16:45
Matrix: Water
Date Received: 05/14/20 17:30

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/21/20 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*84*		*50 - 150*	*05/20/20 08:54*	*05/21/20 00:31*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/27/20 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.003*		*0 - 1*	*05/20/20 08:54*	*05/27/20 01:37*	*1*
o- terphenyl (Surr) (1C)	*72*		*50 - 150*	*05/20/20 08:54*	*05/27/20 01:37*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.6		5.6		mg/L			05/21/20 18:53	1
SGT-HEM (TPH)	<5.6		5.6		mg/L			05/21/20 18:53	1

Surrogate Summary

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	OTP1 (50-150)						
410-2314-1	MW-01	87						
410-2314-2	MW-27D	88						
410-2314-3	VSP-1D	88						
410-2314-4	VSP-1S	83						
410-2314-5	VSP-4	82						
410-2314-6	T-1100	81						
410-2314-7	VSP-100	83						
410-2314-8	MW-100	82						
410-2314-9	EB-051320	84						
LCS 410-8859/3-A	Lab Control Sample	88						
LCSD 410-8859/6-A	Lab Control Sample Dup	81						
MB 410-8859/1-A	Method Blank	83						

Surrogate Legend

OTP = o- terphenyl (Surr) (1C)

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	NDA1 (0-1)	OTP1 (50-150)					
410-2314-1	MW-01	0.00005	64					
410-2314-2	MW-27D	0.0002	65					
410-2314-3	VSP-1D	0.003	64					
410-2314-4	VSP-1S	0.0002	62					
410-2314-5	VSP-4	0.0001	63					
410-2314-6	T-1100	0.001	63					
410-2314-7	VSP-100	0.003	67					
410-2314-8	MW-100	0.003	67					
410-2314-9	EB-051320	0.003	72					
LCS 410-8859/3-B	Lab Control Sample	0.2	64					
LCSD 410-8859/6-B	Lab Control Sample Dup	0.2	77					
MB 410-8859/1-B	Method Blank	0.002	64					

Surrogate Legend

NDA = Capric Acid (Surr) (1C)
OTP = o- terphenyl (Surr) (1C)

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 410-8859/1-A
Matrix: Water
Analysis Batch: 9047

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8859

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/20/20 20:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o- terphenyl (Surr) (1C)	*83*		*50 - 150*	*05/20/20 08:54*	*05/20/20 20:22*	*1*

Lab Sample ID: LCS 410-8859/3-A
Matrix: Water
Analysis Batch: 9047

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8859

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	600	392		ug/L		65	20 - 118

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*88*		*50 - 150*

Lab Sample ID: LCSD 410-8859/6-A
Matrix: Water
Analysis Batch: 9047

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8859

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)	600	367		ug/L		61	20 - 118	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*81*		*50 - 150*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment

Lab Sample ID: MB 410-8859/1-B
Matrix: Water
Analysis Batch: 9278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8859

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C28) (1C)	<100		100		ug/L		05/20/20 08:54	05/26/20 21:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr) (1C)	*0.002*		*0 - 1*	*05/20/20 08:54*	*05/26/20 21:28*	*1*
o- terphenyl (Surr) (1C)	*64*		*50 - 150*	*05/20/20 08:54*	*05/26/20 21:28*	*1*

Lab Sample ID: LCS 410-8859/3-B
Matrix: Water
Analysis Batch: 9278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8859

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (C10-C28) (1C)	600	289		ug/L		48	12 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Capric Acid (Surr) (1C)	*0.2*		*0 - 1*

Method: 8015C - Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment (Continued)

Lab Sample ID: LCS 410-8859/3-B
Matrix: Water
Analysis Batch: 9278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8859

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o- terphenyl (Surr) (1C)	*64*		*50 - 150*

Lab Sample ID: LCSD 410-8859/6-B
Matrix: Water
Analysis Batch: 9278

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 8859

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (C10-C28) (1C)			600	349		ug/L		58	12 - 115	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Capric Acid (Surr) (1C)	*0.2*		*0 - 1*
o- terphenyl (Surr) (1C)	*77*		*50 - 150*

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 410-8681/1
Matrix: Water
Analysis Batch: 8681

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0		mg/L			05/18/20 16:16	1
SGT-HEM (TPH)	<5.0		5.0		mg/L			05/18/20 16:16	1

Lab Sample ID: LCS 410-8681/2
Matrix: Water
Analysis Batch: 8681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
HEM (Oil & Grease)			40.0	36.2		mg/L		91	78 - 114		
SGT-HEM (TPH)			20.0	15.5		mg/L		78	64 - 132		

Lab Sample ID: LCSD 410-8681/3
Matrix: Water
Analysis Batch: 8681

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)			40.0	33.9		mg/L		85	78 - 114	7	13
SGT-HEM (TPH)			20.0	14.7		mg/L		74	64 - 132	5	23

Lab Sample ID: 410-2314-6 MS
Matrix: Water
Analysis Batch: 8681

Client Sample ID: T-1100
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
HEM (Oil & Grease)	<5.4		43.5	37.7		mg/L		87	78 - 114		
SGT-HEM (TPH)	<5.4		21.7	17.2		mg/L		79	64 - 132		

Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: MB 410-9067/1
Matrix: Water
Analysis Batch: 9067

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0		mg/L			05/21/20 18:53	1
SGT-HEM (TPH)	<5.0		5.0		mg/L			05/21/20 18:53	1

Lab Sample ID: LCS 410-9067/2
Matrix: Water
Analysis Batch: 9067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	40.0		mg/L		100	78 - 114
SGT-HEM (TPH)	20.0	16.8		mg/L		84	64 - 132

Lab Sample ID: LCSD 410-9067/3
Matrix: Water
Analysis Batch: 9067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	40.0	38.9		mg/L		97	78 - 114	3	13
SGT-HEM (TPH)	20.0	18.3		mg/L		92	64 - 132	9	23

Lab Sample ID: 410-2314-9 MS
Matrix: Water
Analysis Batch: 9067

Client Sample ID: EB-051320
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	<5.6		44.4	41.7		mg/L		94	78 - 114
SGT-HEM (TPH)	<5.6		22.2	19.2		mg/L		87	64 - 132

QC Association Summary

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

GC Semi VOA

Prep Batch: 8859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-2314-1	MW-01	Total/NA	Water	3510C	
410-2314-1	MW-01	Total/NA	Water	3510C	
410-2314-2	MW-27D	Total/NA	Water	3510C	
410-2314-2	MW-27D	Total/NA	Water	3510C	
410-2314-3	VSP-1D	Total/NA	Water	3510C	
410-2314-3	VSP-1D	Total/NA	Water	3510C	
410-2314-4	VSP-1S	Total/NA	Water	3510C	
410-2314-4	VSP-1S	Total/NA	Water	3510C	
410-2314-5	VSP-4	Total/NA	Water	3510C	
410-2314-5	VSP-4	Total/NA	Water	3510C	
410-2314-6	T-1100	Total/NA	Water	3510C	
410-2314-6	T-1100	Total/NA	Water	3510C	
410-2314-7	VSP-100	Total/NA	Water	3510C	
410-2314-7	VSP-100	Total/NA	Water	3510C	
410-2314-8	MW-100	Total/NA	Water	3510C	
410-2314-8	MW-100	Total/NA	Water	3510C	
410-2314-9	EB-051320	Total/NA	Water	3510C	
410-2314-9	EB-051320	Total/NA	Water	3510C	
MB 410-8859/1-A	Method Blank	Total/NA	Water	3510C	
MB 410-8859/1-B	Method Blank	Total/NA	Water	3510C	
LCS 410-8859/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 410-8859/3-B	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-8859/6-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 410-8859/6-B	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 9047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-2314-1	MW-01	Total/NA	Water	8015C	8859
410-2314-2	MW-27D	Total/NA	Water	8015C	8859
410-2314-3	VSP-1D	Total/NA	Water	8015C	8859
410-2314-4	VSP-1S	Total/NA	Water	8015C	8859
410-2314-5	VSP-4	Total/NA	Water	8015C	8859
410-2314-6	T-1100	Total/NA	Water	8015C	8859
410-2314-7	VSP-100	Total/NA	Water	8015C	8859
410-2314-8	MW-100	Total/NA	Water	8015C	8859
410-2314-9	EB-051320	Total/NA	Water	8015C	8859
MB 410-8859/1-A	Method Blank	Total/NA	Water	8015C	8859
LCS 410-8859/3-A	Lab Control Sample	Total/NA	Water	8015C	8859
LCSD 410-8859/6-A	Lab Control Sample Dup	Total/NA	Water	8015C	8859

Cleanup Batch: 9095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-2314-1	MW-01	Total/NA	Water	3630C	8859
410-2314-2	MW-27D	Total/NA	Water	3630C	8859
410-2314-3	VSP-1D	Total/NA	Water	3630C	8859
410-2314-4	VSP-1S	Total/NA	Water	3630C	8859
410-2314-5	VSP-4	Total/NA	Water	3630C	8859
410-2314-6	T-1100	Total/NA	Water	3630C	8859
410-2314-7	VSP-100	Total/NA	Water	3630C	8859
410-2314-8	MW-100	Total/NA	Water	3630C	8859
410-2314-9	EB-051320	Total/NA	Water	3630C	8859

GC Semi VOA (Continued)

Cleanup Batch: 9095 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-8859/1-B	Method Blank	Total/NA	Water	3630C	8859
LCS 410-8859/3-B	Lab Control Sample	Total/NA	Water	3630C	8859
LCSD 410-8859/6-B	Lab Control Sample Dup	Total/NA	Water	3630C	8859

Analysis Batch: 9278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-2314-1	MW-01	Total/NA	Water	8015C	9095
410-2314-2	MW-27D	Total/NA	Water	8015C	9095
410-2314-3	VSP-1D	Total/NA	Water	8015C	9095
410-2314-4	VSP-1S	Total/NA	Water	8015C	9095
410-2314-5	VSP-4	Total/NA	Water	8015C	9095
410-2314-6	T-1100	Total/NA	Water	8015C	9095
410-2314-7	VSP-100	Total/NA	Water	8015C	9095
410-2314-8	MW-100	Total/NA	Water	8015C	9095
410-2314-9	EB-051320	Total/NA	Water	8015C	9095
MB 410-8859/1-B	Method Blank	Total/NA	Water	8015C	9095
LCS 410-8859/3-B	Lab Control Sample	Total/NA	Water	8015C	9095
LCSD 410-8859/6-B	Lab Control Sample Dup	Total/NA	Water	8015C	9095

General Chemistry

Analysis Batch: 8681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-2314-1	MW-01	Total/NA	Water	1664B	
410-2314-2	MW-27D	Total/NA	Water	1664B	
410-2314-3	VSP-1D	Total/NA	Water	1664B	
410-2314-4	VSP-1S	Total/NA	Water	1664B	
410-2314-5	VSP-4	Total/NA	Water	1664B	
410-2314-6	T-1100	Total/NA	Water	1664B	
410-2314-8	MW-100	Total/NA	Water	1664B	
MB 410-8681/1	Method Blank	Total/NA	Water	1664B	
LCS 410-8681/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 410-8681/3	Lab Control Sample Dup	Total/NA	Water	1664B	
410-2314-6 MS	T-1100	Total/NA	Water	1664B	

Analysis Batch: 9067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-2314-7	VSP-100	Total/NA	Water	1664B	
410-2314-9	EB-051320	Total/NA	Water	1664B	
MB 410-9067/1	Method Blank	Total/NA	Water	1664B	
LCS 410-9067/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 410-9067/3	Lab Control Sample Dup	Total/NA	Water	1664B	
410-2314-9 MS	EB-051320	Total/NA	Water	1664B	

Lab Chronicle

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: MW-01
Date Collected: 05/14/20 10:18
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/20/20 21:30	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/26/20 22:36	KP5X	ELLE
Total/NA	Analysis	1664B		1	8681	05/18/20 16:16	QT6L	ELLE

Client Sample ID: MW-27D
Date Collected: 05/13/20 14:55
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/20/20 21:52	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/26/20 22:59	KP5X	ELLE
Total/NA	Analysis	1664B		1	8681	05/18/20 16:16	QT6L	ELLE

Client Sample ID: VSP-1D
Date Collected: 05/14/20 10:00
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/20/20 22:15	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/26/20 23:21	KP5X	ELLE
Total/NA	Analysis	1664B		1	8681	05/18/20 16:16	QT6L	ELLE

Client Sample ID: VSP-1S
Date Collected: 05/14/20 10:25
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/20/20 22:38	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/26/20 23:44	KP5X	ELLE
Total/NA	Analysis	1664B		1	8681	05/18/20 16:16	QT6L	ELLE

Lab Chronicle

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: VSP-4
Date Collected: 05/14/20 09:10
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/20/20 23:00	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/27/20 00:07	KP5X	ELLE
Total/NA	Analysis	1664B		1	8681	05/18/20 16:16	QT6L	ELLE

Client Sample ID: T-1100
Date Collected: 05/14/20 09:35
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/20/20 23:23	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/27/20 00:29	KP5X	ELLE
Total/NA	Analysis	1664B		1	8681	05/18/20 16:16	QT6L	ELLE

Client Sample ID: VSP-100
Date Collected: 05/14/20 08:00
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/20/20 23:46	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/27/20 00:52	KP5X	ELLE
Total/NA	Analysis	1664B		1	9067	05/21/20 18:53	QT6L	ELLE

Client Sample ID: MW-100
Date Collected: 05/13/20 08:00
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/21/20 00:08	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/27/20 01:15	KP5X	ELLE
Total/NA	Analysis	1664B		1	8681	05/18/20 16:16	QT6L	ELLE

Lab Chronicle

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Client Sample ID: EB-051320

Date Collected: 05/13/20 16:45
Date Received: 05/14/20 17:30

Lab Sample ID: 410-2314-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Analysis	8015C		1	9047	05/21/20 00:31	IUSB	ELLE
Total/NA	Prep	3510C			8859	05/20/20 08:54	I5BW	ELLE
Total/NA	Cleanup	3630C			9095	05/22/20 05:34	UKQ8	ELLE
Total/NA	Analysis	8015C		1	9278	05/27/20 01:37	KP5X	ELLE
Total/NA	Analysis	1664B		1	9067	05/21/20 18:53	QT6L	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Maryland	State	100	06-30-20

Method Summary

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Method	Method Description	Protocol	Laboratory
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	ELLE
8015C	Nonhalogenated Organics using GC/FID-Modified (DRO) Silica Gel Treatment	EPA	ELLE
1664B	HEM and SGT-HEM	1664B	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3630C	Silica Gel Cleanup	SW846	ELLE

Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: WSP USA Corp.
Project/Site: Former Kop-Flex Facility Site

Job ID: 410-2314-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-2314-1	MW-01	Water	05/14/20 10:18	05/14/20 17:30	
410-2314-2	MW-27D	Water	05/13/20 14:55	05/14/20 17:30	
410-2314-3	VSP-1D	Water	05/14/20 10:00	05/14/20 17:30	
410-2314-4	VSP-1S	Water	05/14/20 10:25	05/14/20 17:30	
410-2314-5	VSP-4	Water	05/14/20 09:10	05/14/20 17:30	
410-2314-6	T-1100	Water	05/14/20 09:35	05/14/20 17:30	
410-2314-7	VSP-100	Water	05/14/20 08:00	05/14/20 17:30	
410-2314-8	MW-100	Water	05/13/20 08:00	05/14/20 17:30	
410-2314-9	EB-051320	Water	05/13/20 16:45	05/14/20 17:30	

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June 16, 2020

ENV Subcontracting
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Certificate of Analysis

Project Name:	**2020-TOC IN WATER**	Workorder:	**3105359**
Purchase Order:		Workorder ID:	**31401545.01**

Dear ENV Subcontracting:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, May 26, 2020.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Sarah S Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Ms. Sarah S Leung
Project Coordinator

SAMPLE SUMMARY

Workorder: 3105359 31401545.01

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3105359001	MW-01 GW	Water	5/21/2020 13:00	5/26/2020 09:15	Collected by Client
3105359002	MW-01 FA	Water	5/21/2020 13:10	5/26/2020 09:15	Collected by Client
3105359003	MW-01 HA	Water	5/21/2020 13:20	5/26/2020 09:15	Collected by Client
3105359004	MW-27D GW	Water	5/21/2020 13:30	5/26/2020 09:15	Collected by Client
3105359005	MW-27D FA	Water	5/21/2020 13:40	5/26/2020 09:15	Collected by Client
3105359006	MW-27D HA	Water	5/21/2020 13:50	5/26/2020 09:15	Collected by Client
3105359007	VSP-1D GW	Water	5/21/2020 14:00	5/26/2020 09:15	Collected by Client
3105359008	VSP-1D FA	Water	5/21/2020 14:10	5/26/2020 09:15	Collected by Client
3105359009	VSP-1D HA	Water	5/21/2020 14:20	5/26/2020 09:15	Collected by Client
3105359010	VSP-4 GW	Water	5/21/2020 15:00	5/26/2020 09:15	Collected by Client
3105359011	VSP-4 FA	Water	5/21/2020 15:10	5/26/2020 09:15	Collected by Client
3105359012	VSP-4 HA	Water	5/21/2020 15:20	5/26/2020 09:15	Collected by Client
3105359013	VSP-1S GW	Water	5/21/2020 14:30	5/26/2020 09:15	Collected by Client
3105359014	VSP-1S FA	Water	5/21/2020 14:40	5/26/2020 09:15	Collected by Client
3105359015	VSP-1S HA	Water	5/21/2020 14:50	5/26/2020 09:15	Collected by Client
3105359016	T-1100 GW	Water	5/21/2020 15:30	5/26/2020 09:15	Collected by Client
3105359017	T-1100 FA	Water	5/21/2020 15:40	5/26/2020 09:15	Collected by Client
3105359018	T-1100 HA	Water	5/21/2020 15:50	5/26/2020 09:15	Collected by Client
3105359019	MW100 HA	Water	5/21/2020 16:50	5/26/2020 09:15	Collected by Client
3105359020	MW100 GW	Water	5/21/2020 16:30	5/26/2020 09:15	Collected by Client
3105359021	MW100 FA	Water	5/21/2020 16:40	5/26/2020 09:15	Collected by Client
3105359022	VSP-100 GW	Water	5/21/2020 16:10	5/26/2020 09:15	Collected by Client
3105359023	VSP-100 HA	Water	5/21/2020 16:20	5/26/2020 09:15	Collected by Client
3105359024	VSP-100 FA	Water	5/21/2020 16:10	5/26/2020 09:15	Collected by Client

SAMPLE SUMMARY

Workorder: 3105359 31401545.01

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359001** Date Collected: 5/21/2020 13:00 Matrix: Water

Sample ID: **MW-01 GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.91		mg/L	0.50	0.18	SM5310B-2011		6/10/20 23:10	PAG	A

Ms. Sarah S Leung
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359002** Date Collected: 5/21/2020 13:10 Matrix: Water
Sample ID: **MW-01 FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	1.7		mg/L	0.50	0.18	SM5310B-2011		6/10/20 23:10	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359003** Date Collected: 5/21/2020 13:20 Matrix: Water
Sample ID: **MW-01 HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.23J	J	mg/L	0.50	0.18	SM5310B-2011		6/10/20 23:10	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359004** Date Collected: 5/21/2020 13:30 Matrix: Water
Sample ID: **MW-27D GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.83		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359005** Date Collected: 5/21/2020 13:40 Matrix: Water

Sample ID: **MW-27D FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	1.7		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359006** Date Collected: 5/21/2020 13:50 Matrix: Water
Sample ID: **MW-27D HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.79		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359007** Date Collected: 5/21/2020 14:00 Matrix: Water
Sample ID: **VSP-1D GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.61		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359008** Date Collected: 5/21/2020 14:10 Matrix: Water

Sample ID: **VSP-1D FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	2.0		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359009** Date Collected: 5/21/2020 14:20 Matrix: Water
Sample ID: **VSP-1D HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.66		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359010** Date Collected: 5/21/2020 15:00 Matrix: Water

Sample ID: **VSP-4 GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	6.6		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359011** Date Collected: 5/21/2020 15:10 Matrix: Water
Sample ID: **VSP-4 FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.88		mg/L	0.50	0.18	SM5310B-2011		6/11/20 04:09	PAG	A

Ms. Sarah S Leung
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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359012** Date Collected: 5/21/2020 15:20 Matrix: Water

Sample ID: **VSP-4 HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	8.7		mg/L	1.0	0.37	SM5310B-2011		6/15/20 21:16	PAG	A

Ms. Sarah S Leung
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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359013** Date Collected: 5/21/2020 14:30 Matrix: Water

Sample ID: **VSP-1S GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	1.3		mg/L	0.50	0.18	SM5310B-2011		6/10/20 23:10	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359014** Date Collected: 5/21/2020 14:40 Matrix: Water

Sample ID: **VSP-1S FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	2.2		mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359015** Date Collected: 5/21/2020 14:50 Matrix: Water

Sample ID: **VSP-1S HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.66		mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359016** Date Collected: 5/21/2020 15:30 Matrix: Water
Sample ID: **T-1100 GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.24J	J	mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359017** Date Collected: 5/21/2020 15:40 Matrix: Water

Sample ID: **T-1100 FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	1.6		mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

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ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359018** Date Collected: 5/21/2020 15:50 Matrix: Water
Sample ID: **T-1100 HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.33J	J	mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

Ms. Sarah S Leung
Project Coordinator

ALS Environmental
301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359019** Date Collected: 5/21/2020 16:50 Matrix: Water
Sample ID: **MW100 HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.20J	J	mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

Ms. Sarah S Leung
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359020** Date Collected: 5/21/2020 16:30 Matrix: Water

Sample ID: **MW100 GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	1.3		mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

Ms. Sarah S Leung
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359021** Date Collected: 5/21/2020 16:40 Matrix: Water

Sample ID: **MW100 FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	1.8		mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

Ms. Sarah S Leung
Project Coordinator

ALS Environmental
301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359022** Date Collected: 5/21/2020 16:10 Matrix: Water
Sample ID: **VSP-100 GW** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.50		mg/L	0.50	0.18	SM5310B-2011		6/11/20 09:01	PAG	A

Ms. Sarah S Leung
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359023** Date Collected: 5/21/2020 16:20 Matrix: Water

Sample ID: **VSP-100 HA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	0.33J	J	mg/L	0.50	0.18	SM5310B-2011		6/11/20 13:28	PAG	A

Ms. Sarah S Leung
Project Coordinator

ALS Environmental
301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3105359 31401545.01

Lab ID: **3105359024** Date Collected: 5/21/2020 16:10 Matrix: Water
Sample ID: **VSP-100 FA** Date Received: 5/26/2020 09:15

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Total Organic Carbon (TOC)	1.5		mg/L	0.50	0.18	SM5310B-2011		6/11/20 13:28	PAG	A

Ms. Sarah S Leung
Project Coordinator

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3105359 31401545.01

Lab ID	Sample ID	Analysis Method	Prep Method	Leachate Method
3105359001	MW-01 GW	SM5310B-2011		
3105359002	MW-01 FA	SM5310B-2011		
3105359003	MW-01 HA	SM5310B-2011		
3105359004	MW-27D GW	SM5310B-2011		
3105359005	MW-27D FA	SM5310B-2011		
3105359006	MW-27D HA	SM5310B-2011		
3105359007	VSP-1D GW	SM5310B-2011		
3105359008	VSP-1D FA	SM5310B-2011		
3105359009	VSP-1D HA	SM5310B-2011		
3105359010	VSP-4 GW	SM5310B-2011		
3105359011	VSP-4 FA	SM5310B-2011		
3105359012	VSP-4 HA	SM5310B-2011		
3105359013	VSP-1S GW	SM5310B-2011		
3105359014	VSP-1S FA	SM5310B-2011		
3105359015	VSP-1S HA	SM5310B-2011		
3105359016	T-1100 GW	SM5310B-2011		
3105359017	T-1100 FA	SM5310B-2011		
3105359018	T-1100 HA	SM5310B-2011		
3105359019	MW100 HA	SM5310B-2011		
3105359020	MW100 GW	SM5310B-2011		
3105359021	MW100 FA	SM5310B-2011		
3105359022	VSP-100 GW	SM5310B-2011		
3105359023	VSP-100 HA	SM5310B-2011		
3105359024	VSP-100 FA	SM5310B-2011		

SSL

ALS Environmental
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Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:

ALSI Quote

3105359

Client Name: Eurofins Lancaster Laboratories Environmental
Address: 2425 New Holland Pike
Lancaster, PA 17601
Contact: Hannah Cottman
Phone#: 717-556-7383
Project Name/#: 31401545.01
Bill To: Same
TAT: [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: _____ Approved By: _____
Email? [x] -Y FLLE.Subcontracting@EurofinsUS.com
Fax? [ ] -Y No.: _____

Container Type: glass
Container Size: 40
Preservative: HCl

ANALYSES/METHOD REQUESTED: Low Level TOC

Receipt Information (complete ...)
Cooler Temp: 0 Therm ID: 523
No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Enter Number of Containers Per Sample or Field Results Below.

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Low Level TOC	Sample/COC Comments
MW-01 GW	5/21/20	13:00		A	1X	no pres
MW-01 FA	5/21/20	13:10		A	1X	
MW-01 HA	5/21/20	13:20		A	1X	
MW-27D GW	5/21/20	13:30		A	1X	no pres
MW-27D FA	5/21/20	13:40		A	1X	
MW-27D HA	5/21/20	13:50		A	1X	
MW-1D GW	5/21/20	14:00		A	1X	no pres
VSP-1D FA	5/21/20	14:10		A	1X	
VSP-1D HA	5/21/20	14:20		A	1X	
					-CD 5/20	

Project Comments: Please provide .xls and .pdf report formats. send results to michael@teamsystems.net

LOGGED BY(signature): Date: Time:
REVIEWED BY(signature): Date: Time:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Michael@Cee Team Systems	5/21/20	16:30	2 [signature]	5/21/20	
3			4		
5			6		
7			8		
9			10 Kristi [signature]	5/26/20	09:15

Data Deliverables: [x] Standard [ ] CLP-like [ ] USACE [x] Excel

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [x] MD [ ] WV

Reportable to PADEP? Yes [ ]
PWSID #

Sample Disposal: Lab [x] Special [ ]

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Relinquished Hand Left CLE 10-27-2020 1019
[signature] / CLE 5/27/20 1145
[signature] / CLE 5/27/20 1250

ALS Environmental
301 Fulling Mill Road
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 31053869 — 2 of 3
ALSI Quote #:

Client Name: Eurofins Lancaster Laboratories Environmental
Address: 2425 New Holland Pike
Lancaster, PA 17601
Contact: Hannah Cottman
Phone#: 717-556-7383
Project Name/#: 31401545.01
Bill To: Same
TAT: [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: _____ Approved By: _____
Email? [x] -Y ELLE.Subcontracting@EurofinsUS.com
Fax? [ ] -Y No.: _____

Container Type: 6 1255
Container Size: 40ml 4121
Preservative: HCl

ANALYSES/METHOD REQUESTED: Low Level TOC

Enter Number of Containers Per Sample or Field Results Below.

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Low Level TOC	Sample/COC Comments
VSP-4 GW	5/21/20	15:00		A	1X	no pres
VSP-4 FA	5/21/20	15:10		A	1X	
VSP-4 HA	5/21/20	15:20		A	1X	
VSP-15 GW	5/21/20	14:30		A	1X	no pres
VSP-15 FA	5/21/20	14:40		A	1X	
VSP-15 HA	5/21/20	14:50		A	1X	
T-1100 GW	5/21/20	15:30		A	1X	no pres
T-1100 FA	5/21/20	15:40		A	1X	
T-1100 HA	5/21/20	15:50		A	1X	

Receipt Information (completed by Receiving Lab)
Cooler Temp: 0 Therm ID: 523
No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Project Comments: Please provide .xls and .pdf report formats. send results to ellee@lancastersens.net

LOGGED BY(signature): CB 5/23 DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Michael Lee Terra (systems)	5/21/20	16:30	2		
3			4		
5			6		
7			8		
9			10 Kristin [illegible]	5/26/20	0915

Data Deliverables: [x] Standard [ ] CLP-like [ ] USACE [x] Excel
Special Processing: USACE [ ] Navy [ ] [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ] MD WV
Reportable to PADEP? Yes [ ]
PWSID #
Sample Disposal: Lab [x] Special [ ]
EDDS: Format Type-

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Relinquished [illegible] 5-27-2020 1045 [illegible] / ELLE 5/27/20 1145
[illegible] 5-27-20 1250 [illegible] 5/27/2020 1250

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: Eurofins | Work Order #: 3105359 | Initials: S/27 | Date:

1. Were airbills / tracking numbers present and recorded?	NONE	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	YES	NO
3. Are Custody Seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present?		YES	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	NO
5a. Does the COC contain sample locations?		YES	NO
5b. Does the COC contain date and time of sample collection for all samples?		YES	NO
5c. Does the COC contain sample collectors name?		YES	NO
5d. Does the COC note the type(s) of preservation for all bottles?		YES	NO
5e. Does the COC note the number of bottles submitted for each sample?		YES	NO
5f. Does the COC note the type of sample, composite or grab?		YES	NO
5g. Does the COC note the matrix of the sample(s)?		YES	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		YES	NO
8. Are all samples within holding times for the requested analyses?		YES	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		YES	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	N/A	YES	NO
11. Were the samples received on ice?		YES	NO
12. Were sample temperatures measured at 0.0-6.0°C		YES	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #:

Temperature (°C): 6

Thermometer ID: 523

Radiological (µCi):

COMMENTS (Required for all NO responses above and any sample non-conformance):

(2) MW-100 HA 5/21/20 1650
(2) MW-100 GW 5/21/2020 1630 TOC's
(2) MW-100 FA 5/21/2020 1640

VSP-100 GW (5-21-20 16:10) VSP-100 HA (5-21-20 16:10) VSP-100 FA (5-21-20 16:10)

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis

Rev 1/20/2020

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: Eurofins | Work Order #: 3165359 | Initials: CD | Date: 5/27/2020

1. Were airbills / tracking numbers present and recorded?	NONE	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	YES	NO
3. Are Custody Seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present?		YES	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	NO
5a. Does the COC contain sample locations?		YES	NO
5b. Does the COC contain date and time of sample collection for all samples?		YES	NO
5c. Does the COC contain sample collectors name?		YES	NO
5d. Does the COC note the type(s) of preservation for all bottles?		YES	NO
5e. Does the COC note the number of bottles submitted for each sample?		YES	NO
5f. Does the COC note the type of sample, composite or grab?		YES	NO
5g. Does the COC note the matrix of the sample(s)?		YES	NO
6. Are all aqueous samples requiring preservation preserved correctly?[1]	N/A	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		YES	NO
8. Are all samples within holding times for the requested analyses?		YES	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		YES	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	N/A	YES	NO
11. Were the samples received on ice?		YES	NO
12. Were sample temperatures measured at 0.0-6.0°C		YES	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	NO
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #: _____

Temperature (°C): 0

Thermometer ID: 523

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

[1]Final determination of correct preservation for analysis such as volatiles, microbiology, and oil and grease is made in the analytical department at the time of or following the analysis

Rev 1/20/2020

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 13530 Dulles Technology Dr Ste. 300 Herndon, VA 20171

Project Name: Kop-flex

WSP USA Contact Name: Eric Johnson

Project Location: Hanover, MD

WSP USA Contact E-mail: Eric.Johnson@wsp.com

Project Number & Task: 31401545.010/4

WSP USA Contact Phone: 703 709 6500

Sampler(s) Name(s): Molly Long, Elliott Martynkiewicz

Sampler(s) Signature(s): [signature]

No. 010019

Laboratory Name & Location: Eurofins Lancaster

Laboratory Project Manager: Andrea DeCola

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ___ HR

Requested Analyses & Preservatives

Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	TOC Method 5310C	EPH w/ silica gel cleanup 8015C	EPH 8015C	HEM 1664B	HEM w/ silica gel treatment 1664B						Sample Comments
MW-01	AQ	5/14/2020		10	18	8	X	X	X	X	X						*
MW-27D	AQ	5/13/2020		14	55	8	X	X	X	X	X						
VSP-1D	AQ	5/14/2020		10	00	8	X	X	X	X	X						
VSP-1S	AQ	5/14/2020		10	25	8	X	X	X	X	X						
VSP-4	AQ	5/14/2020		09	10	8	X	X	X	X	X						
T-1100	AQ	5/14/2020		09	35	8	X	X	X	X	X						
VSP-100	AQ	5/14/2020		08	00	8	X	X	X	X	X						
MW-100	AQ	5/13/2020		08	00	8	X	X	X	X	X						
EB-051320	AQ	5/13/2020		16	45	8	X	X	X	X	X						

* A VOA for TOC was broken ~~we is~~ we filled up a glass amber jar half full with sample water. This jar is unpreserved. hw

410-2314 Chain of Custody

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	5/14/20	1430	[signature]	5/14/20	14:30	courier	
Relinquished By (Signature)	**Date**	**Time**	**Received By (Signature)**	**Date**	**Time**	**Number of Packages**	**Custody Seal Number(s)**
[signature]	5/14/20	1710	[signature]	5/14/20	1730		

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Login Sample Receipt Checklist

Client: WSP USA Corp.

Job Number: 410-2314-1

Login Number: 2314
List Number: 1
Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Env

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

ENCLOSURE C – LABORATORY ANALYTICAL REPORTS, MAY 2020 SEMI-ANNUAL GROUNDWATER SAMPLING

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

May 28, 2020

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: Kop-Flex onsite
Pace Project No.: 92478032

Dear Eric Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on May 18, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Molly Long, WSP
Pam Robertson, WSP USA

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project:	Kop-Flex onsite
Pace Project No.:	92478032

Pace Analytical Services Charlotte

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Kop-Flex onsite
Pace Project No.: 92478032

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92478032001	**MW-03**	Water	05/12/20 11:45	05/18/20 09:12
92478032002	**MW-43**	Water	05/12/20 12:05	05/18/20 09:12
92478032003	**MW-39**	Water	05/12/20 12:25	05/18/20 09:12
92478032004	**MW-42**	Water	05/12/20 12:35	05/18/20 09:12
92478032005	**MW-18**	Water	05/12/20 12:50	05/18/20 09:12
92478032006	**MW-38R**	Water	05/12/20 14:05	05/18/20 09:12
92478032007	**MW-40D**	Water	05/12/20 14:20	05/18/20 09:12
92478032008	**MW-21D**	Water	05/12/20 15:15	05/18/20 09:12
92478032009	**MW-5R**	Water	05/12/20 16:25	05/18/20 09:12
92478032010	**MW-41D**	Water	05/12/20 16:40	05/18/20 09:12
92478032011	**MW-1D**	Water	05/12/20 17:05	05/18/20 09:12
92478032012	**MW-22D**	Water	05/12/20 17:20	05/18/20 09:12
92478032013	**MW-04**	Water	05/13/20 10:10	05/18/20 09:12
92478032014	**MW-20**	Water	05/13/20 10:30	05/18/20 09:12
92478032015	**MW-09**	Water	05/13/20 10:45	05/18/20 09:12
92478032016	**MW-23D**	Water	05/13/20 11:00	05/18/20 09:12
92478032017	**MW-27D**	Water	05/13/20 13:10	05/18/20 09:12
92478032018	**Trip Blank A**	Water	05/13/20 00:00	05/18/20 09:12
92478032019	**Trip Blank B**	Water	05/13/20 00:00	05/18/20 09:12
92478032020	**MW-44**	Water	05/13/20 17:30	05/18/20 09:12
92478032021	**MW-16D**	Water	05/13/20 17:50	05/18/20 09:12
92478032022	**Dup-051320**	Water	05/13/20 09:00	05/18/20 09:12
92478032023	**MW-16**	Water	05/13/20 18:00	05/18/20 09:12
92478032024	**MW-01**	Water	05/14/20 10:18	05/18/20 09:12
92478032025	**Trip Blank C**	Water	05/14/20 00:00	05/18/20 09:12

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SAMPLE ANALYTE COUNT

Project: Kop-Flex onsite
Pace Project No.: 92478032

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92478032001	**MW-03**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032002	**MW-43**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032003	**MW-39**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032004	**MW-42**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032005	**MW-18**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032006	**MW-38R**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032007	**MW-40D**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032008	**MW-21D**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032009	**MW-5R**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032010	**MW-41D**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032011	**MW-1D**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032012	**MW-22D**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032013	**MW-04**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032014	**MW-20**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032015	**MW-09**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032016	**MW-23D**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032017	**MW-27D**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032018	**Trip Blank A**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032019	**Trip Blank B**	EPA 8260D	CL	63	PASI-C

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SAMPLE ANALYTE COUNT

Project: Kop-Flex onsite
Pace Project No.: 92478032

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260D Mod.	LMB	3	PASI-C
92478032020	**MW-44**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032021	**MW-16D**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032022	**Dup-051320**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032023	**MW-16**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032024	**MW-01**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478032025	**Trip Blank C**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-03 **Lab ID: 92478032001** Collected: 05/12/20 11:45 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 03:37	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 03:37	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 03:37	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 03:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 03:37	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 03:37	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 03:37	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 03:37	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 03:37	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 03:37	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 03:37	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 03:37	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 03:37	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:37	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 03:37	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 03:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 03:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 03:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:37	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 03:37	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 03:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 03:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:37	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:37	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:37	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 03:37	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 03:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 03:37	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 03:37	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 03:37	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 03:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 03:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 03:37	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 03:37	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 03:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:37	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-03 **Lab ID: 92478032001** Collected: 05/12/20 11:45 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 03:37	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 03:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:37	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 03:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 03:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 03:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 03:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 03:37	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 03:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 03:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 03:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		05/24/20 03:37	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130	1		05/24/20 03:37	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		05/24/20 03:37	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/20/20 23:48	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%	50-150	1		05/20/20 23:48	17060-07-0	
Toluene-d8 (S)	105	%	50-150	1		05/20/20 23:48	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-43 **Lab ID: 92478032002** Collected: 05/12/20 12:05 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 03:19	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 03:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 03:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 03:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 03:19	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 03:19	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 03:19	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 03:19	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 03:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 03:19	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 03:19	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 03:19	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 03:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 03:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 03:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 03:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 03:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:19	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 03:19	75-71-8	
1,1-Dichloroethane	**3.8**	ug/L	1.0	1		05/24/20 03:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 03:19	107-06-2	
1,1-Dichloroethene	**46.3**	ug/L	1.0	1		05/24/20 03:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:19	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 03:19	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 03:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 03:19	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 03:19	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 03:19	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 03:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 03:19	108-10-1	
Methyl-tert-butyl ether	**3.4**	ug/L	1.0	1		05/24/20 03:19	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 03:19	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 03:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:19	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-43 **Lab ID: 92478032002** Collected: 05/12/20 12:05 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 03:19	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 03:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:19	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 03:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 03:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 03:19	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 03:19	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 03:19	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 03:19	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 03:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 03:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		05/24/20 03:19	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130	1		05/24/20 03:19	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		05/24/20 03:19	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**49.0**	ug/L	2.0	1		05/21/20 00:08	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%	50-150	1		05/21/20 00:08	17060-07-0	
Toluene-d8 (S)	103	%	50-150	1		05/21/20 00:08	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-39 **Lab ID: 92478032003** Collected: 05/12/20 12:25 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 03:01	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 03:01	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 03:01	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 03:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 03:01	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 03:01	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 03:01	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 03:01	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 03:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 03:01	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 03:01	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 03:01	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 03:01	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:01	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 03:01	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 03:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 03:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 03:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:01	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 03:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 03:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 03:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:01	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 03:01	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 03:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 03:01	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 03:01	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 03:01	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 03:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 03:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 03:01	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 03:01	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 03:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:01	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-39 **Lab ID: 92478032003** Collected: 05/12/20 12:25 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 03:01	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 03:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:01	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 03:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 03:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 03:01	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 03:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 03:01	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 03:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 03:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 03:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		05/24/20 03:01	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130	1		05/24/20 03:01	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		05/24/20 03:01	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 00:27	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	50-150	1		05/21/20 00:27	17060-07-0	
Toluene-d8 (S)	103	%	50-150	1		05/21/20 00:27	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-42 **Lab ID: 92478032004** Collected: 05/12/20 12:35 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 02:42	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 02:42	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 02:42	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 02:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 02:42	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 02:42	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 02:42	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 02:42	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 02:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 02:42	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 02:42	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 02:42	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 02:42	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 02:42	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 02:42	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 02:42	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 02:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 02:42	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 02:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:42	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:42	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:42	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 02:42	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 02:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 02:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:42	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:42	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:42	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:42	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:42	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:42	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 02:42	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 02:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 02:42	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 02:42	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 02:42	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 02:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 02:42	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 02:42	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 02:42	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 02:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 02:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 02:42	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-42 **Lab ID: 92478032004** Collected: 05/12/20 12:35 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 02:42	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 02:42	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:42	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:42	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 02:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 02:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 02:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 02:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 02:42	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 02:42	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 02:42	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 02:42	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 02:42	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 02:42	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		05/24/20 02:42	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	70-130	1		05/24/20 02:42	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		05/24/20 02:42	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**11.2**	ug/L	2.0	1		05/21/20 00:47	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	50-150	1		05/21/20 00:47	17060-07-0	
Toluene-d8 (S)	97	%	50-150	1		05/21/20 00:47	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-18 **Lab ID: 92478032005** Collected: 05/12/20 12:50 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 02:24	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 02:24	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 02:24	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 02:24	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 02:24	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 02:24	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 02:24	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 02:24	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 02:24	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 02:24	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 02:24	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 02:24	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 02:24	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 02:24	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 02:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 02:24	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 02:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 02:24	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 02:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:24	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 02:24	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 02:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 02:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:24	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:24	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:24	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:24	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:24	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 02:24	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 02:24	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 02:24	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 02:24	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 02:24	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 02:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 02:24	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 02:24	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 02:24	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 02:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 02:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 02:24	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-18 **Lab ID: 92478032005** Collected: 05/12/20 12:50 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 02:24	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 02:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:24	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:24	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 02:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 02:24	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 02:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 02:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 02:24	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 02:24	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 02:24	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 02:24	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 02:24	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 02:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		05/24/20 02:24	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		05/24/20 02:24	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		05/24/20 02:24	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 01:08	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	50-150	1		05/21/20 01:08	17060-07-0	
Toluene-d8 (S)	103	%	50-150	1		05/21/20 01:08	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-38R **Lab ID: 92478032006** Collected: 05/12/20 14:05 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 02:06	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 02:06	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 02:06	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 02:06	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 02:06	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 02:06	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 02:06	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 02:06	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 02:06	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 02:06	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 02:06	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 02:06	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 02:06	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 02:06	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 02:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 02:06	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 02:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 02:06	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 02:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:06	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 02:06	75-71-8	
1,1-Dichloroethane	**6.2**	ug/L	1.0	1		05/24/20 02:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 02:06	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 02:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:06	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:06	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 02:06	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 02:06	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 02:06	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 02:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 02:06	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 02:06	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 02:06	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 02:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 02:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 02:06	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 02:06	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 02:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 02:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 02:06	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-38R **Lab ID: 92478032006** Collected: 05/12/20 14:05 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 02:06	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 02:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:06	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 02:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 02:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 02:06	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 02:06	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 02:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 02:06	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 02:06	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 02:06	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 02:06	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 02:06	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 02:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		05/24/20 02:06	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130	1		05/24/20 02:06	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		05/24/20 02:06	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**40.8**	ug/L	2.0	1		05/21/20 01:28	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	50-150	1		05/21/20 01:28	17060-07-0	
Toluene-d8 (S)	104	%	50-150	1		05/21/20 01:28	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-40D **Lab ID: 92478032007** Collected: 05/12/20 14:20 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 01:48	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 01:48	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 01:48	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 01:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 01:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 01:48	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 01:48	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 01:48	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 01:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 01:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 01:48	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 01:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 01:48	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 01:48	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 01:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 01:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 01:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 01:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 01:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:48	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 01:48	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 01:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 01:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/24/20 01:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 01:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 01:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:48	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:48	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:48	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:48	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 01:48	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 01:48	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 01:48	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 01:48	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 01:48	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 01:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 01:48	108-10-1	
Methyl-tert-butyl ether	**3.1**	ug/L	1.0	1		05/24/20 01:48	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 01:48	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 01:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 01:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 01:48	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-40D **Lab ID: 92478032007** Collected: 05/12/20 14:20 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 01:48	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 01:48	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:48	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:48	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 01:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 01:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 01:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 01:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 01:48	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 01:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 01:48	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 01:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 01:48	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 01:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		05/24/20 01:48	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	70-130	1		05/24/20 01:48	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		05/24/20 01:48	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 01:47	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	50-150	1		05/21/20 01:47	17060-07-0	
Toluene-d8 (S)	105	%	50-150	1		05/21/20 01:47	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-21D **Lab ID: 92478032008** Collected: 05/12/20 15:15 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 01:30	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 01:30	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 01:30	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 01:30	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 01:30	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 01:30	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 01:30	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 01:30	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 01:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 01:30	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 01:30	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 01:30	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 01:30	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 01:30	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 01:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 01:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 01:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 01:30	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 01:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:30	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 01:30	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 01:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 01:30	107-06-2	
1,1-Dichloroethene	**13.6**	ug/L	1.0	1		05/24/20 01:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 01:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 01:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:30	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:30	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:30	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:30	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 01:30	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 01:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 01:30	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 01:30	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 01:30	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 01:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 01:30	108-10-1	
Methyl-tert-butyl ether	**2.9**	ug/L	1.0	1		05/24/20 01:30	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 01:30	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 01:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 01:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 01:30	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-21D **Lab ID: 92478032008** Collected: 05/12/20 15:15 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 01:30	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 01:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:30	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 01:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 01:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 01:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 01:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 01:30	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 01:30	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 01:30	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 01:30	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 01:30	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 01:30	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		05/24/20 01:30	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		05/24/20 01:30	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		05/24/20 01:30	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**7.6**	ug/L	2.0	1		05/21/20 02:07	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	50-150	1		05/21/20 02:07	17060-07-0	
Toluene-d8 (S)	101	%	50-150	1		05/21/20 02:07	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-5R **Lab ID: 92478032009** Collected: 05/12/20 16:25 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 01:12	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 01:12	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 01:12	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 01:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 01:12	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 01:12	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 01:12	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 01:12	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 01:12	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 01:12	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 01:12	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 01:12	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 01:12	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 01:12	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 01:12	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 01:12	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 01:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 01:12	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 01:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:12	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 01:12	75-71-8	
1,1-Dichloroethane	**1.8**	ug/L	1.0	1		05/24/20 01:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 01:12	107-06-2	
1,1-Dichloroethene	**1.7**	ug/L	1.0	1		05/24/20 01:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 01:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 01:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:12	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:12	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 01:12	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:12	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 01:12	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 01:12	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 01:12	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 01:12	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 01:12	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 01:12	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 01:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 01:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 01:12	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 01:12	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 01:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 01:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 01:12	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-5R **Lab ID: 92478032009** Collected: 05/12/20 16:25 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 01:12	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 01:12	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:12	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 01:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 01:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 01:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 01:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 01:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 01:12	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 01:12	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 01:12	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 01:12	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 01:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 01:12	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		05/24/20 01:12	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	70-130	1		05/24/20 01:12	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		05/24/20 01:12	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**13.4**	ug/L	2.0	1		05/21/20 02:28	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	50-150	1		05/21/20 02:28	17060-07-0	
Toluene-d8 (S)	107	%	50-150	1		05/21/20 02:28	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-41D **Lab ID: 92478032010** Collected: 05/12/20 16:40 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 06:01	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 06:01	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 06:01	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 06:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 06:01	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 06:01	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 06:01	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 06:01	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 06:01	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 06:01	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 06:01	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 06:01	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 06:01	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 06:01	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 06:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 06:01	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 06:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 06:01	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 06:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 06:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 06:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 06:01	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 06:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 06:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 06:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/24/20 06:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 06:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 06:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 06:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 06:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 06:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 06:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 06:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 06:01	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 06:01	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 06:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 06:01	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 06:01	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 06:01	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 06:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 06:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 06:01	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 06:01	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 06:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 06:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 06:01	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-41D **Lab ID: 92478032010** Collected: 05/12/20 16:40 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 06:01	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 06:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 06:01	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 06:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 06:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 06:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 06:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 06:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 06:01	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 06:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 06:01	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 06:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 06:01	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 06:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		05/24/20 06:01	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130	1		05/24/20 06:01	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		05/24/20 06:01	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 02:47	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	50-150	1		05/21/20 02:47	17060-07-0	
Toluene-d8 (S)	105	%	50-150	1		05/21/20 02:47	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-1D **Lab ID: 92478032011** Collected: 05/12/20 17:05 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 05:43	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 05:43	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 05:43	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 05:43	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 05:43	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 05:43	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 05:43	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 05:43	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 05:43	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 05:43	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 05:43	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 05:43	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 05:43	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 05:43	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 05:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 05:43	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 05:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 05:43	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 05:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 05:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 05:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 05:43	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 05:43	75-71-8	
1,1-Dichloroethane	**2.6**	ug/L	1.0	1		05/24/20 05:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 05:43	107-06-2	
1,1-Dichloroethene	**16.5**	ug/L	1.0	1		05/24/20 05:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 05:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 05:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 05:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 05:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 05:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 05:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 05:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 05:43	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 05:43	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 05:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 05:43	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 05:43	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 05:43	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 05:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 05:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 05:43	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 05:43	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 05:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 05:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 05:43	79-34-5	

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(704)875-9092

ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-1D **Lab ID: 92478032011** Collected: 05/12/20 17:05 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 05:43	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 05:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 05:43	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 05:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 05:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 05:43	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 05:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 05:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 05:43	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 05:43	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 05:43	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 05:43	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 05:43	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 05:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		05/24/20 05:43	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	70-130	1		05/24/20 05:43	17060-07-0	
Toluene-d8 (S)	106	%	70-130	1		05/24/20 05:43	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**12.8**	ug/L	2.0	1		05/21/20 03:07	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	50-150	1		05/21/20 03:07	17060-07-0	
Toluene-d8 (S)	100	%	50-150	1		05/21/20 03:07	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-22D **Lab ID: 92478032012** Collected: 05/12/20 17:20 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 03:55	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 03:55	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 03:55	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 03:55	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 03:55	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 03:55	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 03:55	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 03:55	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 03:55	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 03:55	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 03:55	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 03:55	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 03:55	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:55	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 03:55	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 03:55	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 03:55	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 03:55	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 03:55	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:55	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 03:55	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/24/20 03:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 03:55	107-06-2	
1,1-Dichloroethene	**6.2**	ug/L	1.0	1		05/24/20 03:55	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:55	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 03:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:55	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:55	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 03:55	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:55	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 03:55	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 03:55	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 03:55	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 03:55	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 03:55	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 03:55	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 03:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 03:55	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 03:55	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 03:55	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 03:55	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:55	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 03:55	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-22D **Lab ID: 92478032012** Collected: 05/12/20 17:20 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 03:55	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 03:55	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:55	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 03:55	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 03:55	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 03:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 03:55	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 03:55	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 03:55	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 03:55	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 03:55	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 03:55	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 03:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		05/24/20 03:55	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130	1		05/24/20 03:55	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		05/24/20 03:55	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**4.6**	ug/L	2.0	1		05/21/20 03:27	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	94	%	50-150	1		05/21/20 03:27	17060-07-0	
Toluene-d8 (S)	106	%	50-150	1		05/21/20 03:27	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-04 **Lab ID: 92478032013** Collected: 05/13/20 10:10 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 17:13	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 17:13	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 17:13	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 17:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 17:13	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 17:13	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 17:13	74-83-9	IH
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 17:13	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 17:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 17:13	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 17:13	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 17:13	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 17:13	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 17:13	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 17:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 17:13	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 17:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 17:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 17:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:13	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 17:13	75-71-8	
1,1-Dichloroethane	**58.6**	ug/L	1.0	1		05/26/20 17:13	75-34-3	
1,2-Dichloroethane	**1.3**	ug/L	1.0	1		05/26/20 17:13	107-06-2	
1,1-Dichloroethene	**149**	ug/L	1.0	1		05/26/20 17:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 17:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 17:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 17:13	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 17:13	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 17:13	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 17:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 17:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 17:13	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 17:13	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 17:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 17:13	87-68-3	IH
2-Hexanone	ND	ug/L	5.0	1		05/26/20 17:13	591-78-6	v1
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 17:13	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 17:13	75-09-2	v1
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 17:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 17:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 17:13	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 17:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 17:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 17:13	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-04 **Lab ID: 92478032013** Collected: 05/13/20 10:10 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 17:13	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 17:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:13	120-82-1	
1,1,1-Trichloroethane	**1.4**	ug/L	1.0	1		05/26/20 17:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 17:13	79-00-5	
Trichloroethene	**1.2**	ug/L	1.0	1		05/26/20 17:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 17:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 17:13	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 17:13	108-05-4	v1
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 17:13	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 17:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 17:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 17:13	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		05/26/20 17:13	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130	1		05/26/20 17:13	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1		05/26/20 17:13	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**84.6**	ug/L	2.0	1		05/21/20 14:52	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	50-150	1		05/21/20 14:52	17060-07-0	
Toluene-d8 (S)	113	%	50-150	1		05/21/20 14:52	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-20 **Lab ID: 92478032014** Collected: 05/13/20 10:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	50.0	2		05/26/20 21:30	67-64-1	
Benzene	ND	ug/L	2.0	2		05/26/20 21:30	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		05/26/20 21:30	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		05/26/20 21:30	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		05/26/20 21:30	75-27-4	
Bromoform	ND	ug/L	2.0	2		05/26/20 21:30	75-25-2	
Bromomethane	ND	ug/L	4.0	2		05/26/20 21:30	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	10.0	2		05/26/20 21:30	78-93-3	
Carbon tetrachloride	ND	ug/L	2.0	2		05/26/20 21:30	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		05/26/20 21:30	108-90-7	
Chloroethane	ND	ug/L	2.0	2		05/26/20 21:30	75-00-3	
Chloroform	ND	ug/L	10.0	2		05/26/20 21:30	67-66-3	
Chloromethane	ND	ug/L	2.0	2		05/26/20 21:30	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		05/26/20 21:30	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		05/26/20 21:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	10.0	2		05/26/20 21:30	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		05/26/20 21:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		05/26/20 21:30	106-93-4	
Dibromomethane	ND	ug/L	2.0	2		05/26/20 21:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 21:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 21:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 21:30	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		05/26/20 21:30	75-71-8	
1,1-Dichloroethane	**188**	ug/L	2.0	2		05/26/20 21:30	75-34-3	
1,2-Dichloroethane	**7.7**	ug/L	2.0	2		05/26/20 21:30	107-06-2	
1,1-Dichloroethene	**232**	ug/L	2.0	2		05/26/20 21:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		05/26/20 21:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		05/26/20 21:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	2		05/26/20 21:30	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		05/26/20 21:30	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	2		05/26/20 21:30	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		05/26/20 21:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	2		05/26/20 21:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	2		05/26/20 21:30	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	2		05/26/20 21:30	108-20-3	
Ethylbenzene	ND	ug/L	2.0	2		05/26/20 21:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	2		05/26/20 21:30	87-68-3	
2-Hexanone	ND	ug/L	10.0	2		05/26/20 21:30	591-78-6	
p-Isopropyltoluene	ND	ug/L	2.0	2		05/26/20 21:30	99-87-6	
Methylene Chloride	ND	ug/L	10.0	2		05/26/20 21:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		05/26/20 21:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		05/26/20 21:30	1634-04-4	
Naphthalene	ND	ug/L	2.0	2		05/26/20 21:30	91-20-3	
Styrene	ND	ug/L	2.0	2		05/26/20 21:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		05/26/20 21:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		05/26/20 21:30	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-20 **Lab ID: 92478032014** Collected: 05/13/20 10:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.0	2		05/26/20 21:30	127-18-4	
Toluene	ND	ug/L	2.0	2		05/26/20 21:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		05/26/20 21:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		05/26/20 21:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	2.0	2		05/26/20 21:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		05/26/20 21:30	79-00-5	
Trichloroethene	ND	ug/L	2.0	2		05/26/20 21:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		05/26/20 21:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	2		05/26/20 21:30	96-18-4	
Vinyl acetate	ND	ug/L	4.0	2		05/26/20 21:30	108-05-4	
Vinyl chloride	ND	ug/L	2.0	2		05/26/20 21:30	75-01-4	
Xylene (Total)	ND	ug/L	2.0	2		05/26/20 21:30	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	2		05/26/20 21:30	179601-23-1	
o-Xylene	ND	ug/L	2.0	2		05/26/20 21:30	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	2		05/26/20 21:30	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	2		05/26/20 21:30	17060-07-0	
Toluene-d8 (S)	101	%	70-130	2		05/26/20 21:30	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**1000**	ug/L	40.0	20		05/21/20 16:10	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	50-150	20		05/21/20 16:10	17060-07-0	
Toluene-d8 (S)	110	%	50-150	20		05/21/20 16:10	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-09 **Lab ID: 92478032015** Collected: 05/13/20 10:45 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 20:35	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 20:35	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 20:35	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 20:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 20:35	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 20:35	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 20:35	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 20:35	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 20:35	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 20:35	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 20:35	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 20:35	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 20:35	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 20:35	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 20:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 20:35	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 20:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 20:35	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 20:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:35	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 20:35	75-71-8	
1,1-Dichloroethane	**2.6**	ug/L	1.0	1		05/26/20 20:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/26/20 20:35	107-06-2	
1,1-Dichloroethene	**50.5**	ug/L	1.0	1		05/26/20 20:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 20:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 20:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:35	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:35	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:35	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:35	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 20:35	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 20:35	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 20:35	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 20:35	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 20:35	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 20:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 20:35	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 20:35	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 20:35	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 20:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 20:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 20:35	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-09 **Lab ID: 92478032015** Collected: 05/13/20 10:45 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 20:35	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 20:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:35	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/26/20 20:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 20:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 20:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 20:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 20:35	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 20:35	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 20:35	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 20:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 20:35	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 20:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		05/26/20 20:35	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		05/26/20 20:35	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		05/26/20 20:35	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**18.7**	ug/L	2.0	1		05/21/20 15:12	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	50-150	1		05/21/20 15:12	17060-07-0	
Toluene-d8 (S)	120	%	50-150	1		05/21/20 15:12	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-23D **Lab ID: 92478032016** Collected: 05/13/20 11:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 20:53	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 20:53	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 20:53	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 20:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 20:53	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 20:53	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 20:53	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 20:53	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 20:53	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 20:53	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 20:53	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 20:53	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 20:53	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 20:53	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 20:53	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 20:53	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 20:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 20:53	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 20:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:53	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 20:53	75-71-8	
1,1-Dichloroethane	**35.2**	ug/L	1.0	1		05/26/20 20:53	75-34-3	
1,2-Dichloroethane	**1.8**	ug/L	1.0	1		05/26/20 20:53	107-06-2	
1,1-Dichloroethene	**142**	ug/L	1.0	1		05/26/20 20:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 20:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 20:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:53	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:53	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:53	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:53	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:53	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 20:53	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 20:53	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 20:53	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 20:53	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 20:53	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 20:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 20:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 20:53	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 20:53	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 20:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 20:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 20:53	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-23D **Lab ID: 92478032016** Collected: 05/13/20 11:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 20:53	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 20:53	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:53	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:53	120-82-1	
1,1,1-Trichloroethane	**13.6**	ug/L	1.0	1		05/26/20 20:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 20:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 20:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 20:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 20:53	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 20:53	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 20:53	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 20:53	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 20:53	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 20:53	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		05/26/20 20:53	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		05/26/20 20:53	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		05/26/20 20:53	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**112**	ug/L	4.0	2		05/21/20 16:30	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%	50-150	2		05/21/20 16:30	17060-07-0	
Toluene-d8 (S)	110	%	50-150	2		05/21/20 16:30	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-27D **Lab ID: 92478032017** Collected: 05/13/20 13:10 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 20:16	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 20:16	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 20:16	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 20:16	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 20:16	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 20:16	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 20:16	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 20:16	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 20:16	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 20:16	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 20:16	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 20:16	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 20:16	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 20:16	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 20:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 20:16	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 20:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 20:16	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 20:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:16	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 20:16	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/26/20 20:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/26/20 20:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/26/20 20:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 20:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 20:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:16	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:16	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 20:16	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 20:16	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 20:16	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 20:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 20:16	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 20:16	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 20:16	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 20:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 20:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 20:16	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 20:16	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 20:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 20:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 20:16	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-27D **Lab ID: 92478032017** Collected: 05/13/20 13:10 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 20:16	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 20:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 20:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/26/20 20:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 20:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 20:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 20:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 20:16	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 20:16	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 20:16	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 20:16	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 20:16	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 20:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		05/26/20 20:16	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		05/26/20 20:16	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		05/26/20 20:16	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 13:53	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	50-150	1		05/21/20 13:53	17060-07-0	
Toluene-d8 (S)	106	%	50-150	1		05/21/20 13:53	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Trip Blank A **Lab ID: 92478032018** Collected: 05/13/20 00:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 18:08	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 18:08	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 18:08	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 18:08	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 18:08	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 18:08	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 18:08	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 18:08	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 18:08	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 18:08	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 18:08	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 18:08	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 18:08	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 18:08	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 18:08	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 18:08	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 18:08	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 18:08	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 18:08	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:08	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:08	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:08	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 18:08	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/26/20 18:08	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/26/20 18:08	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/26/20 18:08	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 18:08	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 18:08	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 18:08	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 18:08	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 18:08	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 18:08	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 18:08	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 18:08	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 18:08	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 18:08	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 18:08	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 18:08	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 18:08	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 18:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 18:08	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 18:08	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 18:08	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 18:08	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 18:08	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 18:08	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Trip Blank A **Lab ID: 92478032018** Collected: 05/13/20 00:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 18:08	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 18:08	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:08	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:08	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/26/20 18:08	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 18:08	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 18:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 18:08	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 18:08	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 18:08	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 18:08	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 18:08	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 18:08	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 18:08	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		05/26/20 18:08	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1		05/26/20 18:08	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		05/26/20 18:08	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 12:52	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	50-150	1		05/21/20 12:52	17060-07-0	
Toluene-d8 (S)	105	%	50-150	1		05/21/20 12:52	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Trip Blank B **Lab ID: 92478032019** Collected: 05/13/20 00:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 18:26	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 18:26	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 18:26	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 18:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 18:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 18:26	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 18:26	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 18:26	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 18:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 18:26	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 18:26	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 18:26	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 18:26	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 18:26	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 18:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 18:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 18:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 18:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 18:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:26	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 18:26	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/26/20 18:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/26/20 18:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/26/20 18:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 18:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 18:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 18:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 18:26	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 18:26	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 18:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 18:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 18:26	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 18:26	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 18:26	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 18:26	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 18:26	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 18:26	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 18:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 18:26	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 18:26	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 18:26	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 18:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 18:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 18:26	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Trip Blank B **Lab ID: 92478032019** Collected: 05/13/20 00:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 18:26	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 18:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:26	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 18:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/26/20 18:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 18:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 18:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 18:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 18:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 18:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 18:26	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 18:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 18:26	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 18:26	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		05/26/20 18:26	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	1		05/26/20 18:26	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		05/26/20 18:26	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 13:13	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	92	%	50-150	1		05/21/20 13:13	17060-07-0	
Toluene-d8 (S)	105	%	50-150	1		05/21/20 13:13	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-44 **Lab ID: 92478032020** Collected: 05/13/20 17:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 19:03	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 19:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 19:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 19:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 19:03	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 19:03	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 19:03	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 19:03	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 19:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 19:03	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 19:03	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 19:03	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 19:03	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 19:03	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 19:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 19:03	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 19:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 19:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 19:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:03	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 19:03	75-71-8	
1,1-Dichloroethane	**3.0**	ug/L	1.0	1		05/26/20 19:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/26/20 19:03	107-06-2	
1,1-Dichloroethene	**4.1**	ug/L	1.0	1		05/26/20 19:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 19:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 19:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:03	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:03	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:03	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:03	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 19:03	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 19:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 19:03	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 19:03	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 19:03	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 19:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 19:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 19:03	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 19:03	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 19:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 19:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 19:03	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-44 **Lab ID: 92478032020** Collected: 05/13/20 17:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 19:03	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 19:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:03	120-82-1	
1,1,1-Trichloroethane	**11.9**	ug/L	1.0	1		05/26/20 19:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 19:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 19:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 19:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 19:03	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 19:03	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 19:03	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 19:03	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 19:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 19:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		05/26/20 19:03	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1		05/26/20 19:03	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		05/26/20 19:03	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**17.7**	ug/L	2.0	1		05/21/20 15:31	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	50-150	1		05/21/20 15:31	17060-07-0	
Toluene-d8 (S)	112	%	50-150	1		05/21/20 15:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-16D **Lab ID: 92478032021** Collected: 05/13/20 17:50 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 19:21	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 19:21	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 19:21	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 19:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 19:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 19:21	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 19:21	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 19:21	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 19:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 19:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 19:21	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 19:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 19:21	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 19:21	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 19:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 19:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 19:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 19:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 19:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:21	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 19:21	75-71-8	
1,1-Dichloroethane	**29.1**	ug/L	1.0	1		05/26/20 19:21	75-34-3	
1,2-Dichloroethane	**1.9**	ug/L	1.0	1		05/26/20 19:21	107-06-2	
1,1-Dichloroethene	**145**	ug/L	1.0	1		05/26/20 19:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 19:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 19:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:21	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:21	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:21	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:21	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 19:21	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 19:21	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 19:21	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 19:21	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 19:21	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 19:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 19:21	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 19:21	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 19:21	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 19:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 19:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 19:21	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-16D **Lab ID: 92478032021** Collected: 05/13/20 17:50 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 19:21	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 19:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:21	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:21	120-82-1	
1,1,1-Trichloroethane	**11.7**	ug/L	1.0	1		05/26/20 19:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 19:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 19:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 19:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 19:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 19:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 19:21	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 19:21	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 19:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 19:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		05/26/20 19:21	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		05/26/20 19:21	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		05/26/20 19:21	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**130**	ug/L	5.0	2.5		05/21/20 16:49	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	50-150	2.5		05/21/20 16:49	17060-07-0	
Toluene-d8 (S)	112	%	50-150	2.5		05/21/20 16:49	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Dup-051320 **Lab ID: 92478032022** Collected: 05/13/20 09:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	125	5		05/27/20 14:37	67-64-1	
Benzene	ND	ug/L	5.0	5		05/27/20 14:37	71-43-2	
Bromobenzene	ND	ug/L	5.0	5		05/27/20 14:37	108-86-1	
Bromochloromethane	ND	ug/L	5.0	5		05/27/20 14:37	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	5		05/27/20 14:37	75-27-4	
Bromoform	ND	ug/L	5.0	5		05/27/20 14:37	75-25-2	
Bromomethane	ND	ug/L	10.0	5		05/27/20 14:37	74-83-9	IK,v2,v3
2-Butanone (MEK)	ND	ug/L	25.0	5		05/27/20 14:37	78-93-3	
Carbon tetrachloride	ND	ug/L	5.0	5		05/27/20 14:37	56-23-5	
Chlorobenzene	ND	ug/L	5.0	5		05/27/20 14:37	108-90-7	
Chloroethane	**10.1**	ug/L	5.0	5		05/27/20 14:37	75-00-3	
Chloroform	ND	ug/L	25.0	5		05/27/20 14:37	67-66-3	
Chloromethane	ND	ug/L	5.0	5		05/27/20 14:37	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	5		05/27/20 14:37	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	5		05/27/20 14:37	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	25.0	5		05/27/20 14:37	96-12-8	
Dibromochloromethane	ND	ug/L	5.0	5		05/27/20 14:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	5		05/27/20 14:37	106-93-4	
Dibromomethane	ND	ug/L	5.0	5		05/27/20 14:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	5		05/27/20 14:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	5		05/27/20 14:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	5		05/27/20 14:37	106-46-7	
Dichlorodifluoromethane	ND	ug/L	5.0	5		05/27/20 14:37	75-71-8	
1,1-Dichloroethane	**425**	ug/L	5.0	5		05/27/20 14:37	75-34-3	M1
1,2-Dichloroethane	ND	ug/L	5.0	5		05/27/20 14:37	107-06-2	
1,1-Dichloroethene	**594**	ug/L	5.0	5		05/27/20 14:37	75-35-4	M1
cis-1,2-Dichloroethene	ND	ug/L	5.0	5		05/27/20 14:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	5		05/27/20 14:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	5		05/27/20 14:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	5		05/27/20 14:37	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	5		05/27/20 14:37	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	5		05/27/20 14:37	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	5		05/27/20 14:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	5		05/27/20 14:37	10061-02-6	
Diisopropyl ether	ND	ug/L	5.0	5		05/27/20 14:37	108-20-3	
Ethylbenzene	ND	ug/L	5.0	5		05/27/20 14:37	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	5		05/27/20 14:37	87-68-3	
2-Hexanone	ND	ug/L	25.0	5		05/27/20 14:37	591-78-6	
p-Isopropyltoluene	ND	ug/L	5.0	5		05/27/20 14:37	99-87-6	
Methylene Chloride	ND	ug/L	25.0	5		05/27/20 14:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	5		05/27/20 14:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	5.0	5		05/27/20 14:37	1634-04-4	
Naphthalene	ND	ug/L	5.0	5		05/27/20 14:37	91-20-3	
Styrene	ND	ug/L	5.0	5		05/27/20 14:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	5		05/27/20 14:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		05/27/20 14:37	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Dup-051320 **Lab ID: 92478032022** Collected: 05/13/20 09:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	5.0	5		05/27/20 14:37	127-18-4	
Toluene	ND	ug/L	5.0	5		05/27/20 14:37	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	5		05/27/20 14:37	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	5		05/27/20 14:37	120-82-1	
1,1,1-Trichloroethane	**518**	ug/L	5.0	5		05/27/20 14:37	71-55-6	M1
1,1,2-Trichloroethane	ND	ug/L	5.0	5		05/27/20 14:37	79-00-5	
Trichloroethene	**12.0**	ug/L	5.0	5		05/27/20 14:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	5		05/27/20 14:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	5		05/27/20 14:37	96-18-4	M1
Vinyl acetate	ND	ug/L	10.0	5		05/27/20 14:37	108-05-4	
Vinyl chloride	ND	ug/L	5.0	5		05/27/20 14:37	75-01-4	
Xylene (Total)	ND	ug/L	5.0	5		05/27/20 14:37	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	5		05/27/20 14:37	179601-23-1	
o-Xylene	ND	ug/L	5.0	5		05/27/20 14:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	5		05/27/20 14:37	460-00-4	
1,2-Dichloroethane-d4 (S)	92	%	70-130	5		05/27/20 14:37	17060-07-0	
Toluene-d8 (S)	99	%	70-130	5		05/27/20 14:37	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**35.0**	ug/L	2.0	1		05/22/20 01:22	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	50-150	1		05/22/20 01:22	17060-07-0	
Toluene-d8 (S)	106	%	50-150	1		05/22/20 01:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-16 **Lab ID: 92478032023** Collected: 05/13/20 18:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	125	5		05/27/20 20:44	67-64-1	
Benzene	ND	ug/L	5.0	5		05/27/20 20:44	71-43-2	
Bromobenzene	ND	ug/L	5.0	5		05/27/20 20:44	108-86-1	
Bromochloromethane	ND	ug/L	5.0	5		05/27/20 20:44	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	5		05/27/20 20:44	75-27-4	
Bromoform	ND	ug/L	5.0	5		05/27/20 20:44	75-25-2	
Bromomethane	ND	ug/L	10.0	5		05/27/20 20:44	74-83-9	IK,v2
2-Butanone (MEK)	ND	ug/L	25.0	5		05/27/20 20:44	78-93-3	
Carbon tetrachloride	ND	ug/L	5.0	5		05/27/20 20:44	56-23-5	
Chlorobenzene	ND	ug/L	5.0	5		05/27/20 20:44	108-90-7	
Chloroethane	**10.9**	ug/L	5.0	5		05/27/20 20:44	75-00-3	
Chloroform	ND	ug/L	25.0	5		05/27/20 20:44	67-66-3	
Chloromethane	ND	ug/L	5.0	5		05/27/20 20:44	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	5		05/27/20 20:44	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	5		05/27/20 20:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	25.0	5		05/27/20 20:44	96-12-8	
Dibromochloromethane	ND	ug/L	5.0	5		05/27/20 20:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	5		05/27/20 20:44	106-93-4	
Dibromomethane	ND	ug/L	5.0	5		05/27/20 20:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	5		05/27/20 20:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	5		05/27/20 20:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	5		05/27/20 20:44	106-46-7	
Dichlorodifluoromethane	ND	ug/L	5.0	5		05/27/20 20:44	75-71-8	
1,1-Dichloroethane	**394**	ug/L	5.0	5		05/27/20 20:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	5		05/27/20 20:44	107-06-2	
1,1-Dichloroethene	**571**	ug/L	5.0	5		05/27/20 20:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	5		05/27/20 20:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	5		05/27/20 20:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	5		05/27/20 20:44	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	5		05/27/20 20:44	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	5		05/27/20 20:44	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	5		05/27/20 20:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	5		05/27/20 20:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	5		05/27/20 20:44	10061-02-6	
Diisopropyl ether	ND	ug/L	5.0	5		05/27/20 20:44	108-20-3	
Ethylbenzene	ND	ug/L	5.0	5		05/27/20 20:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	5		05/27/20 20:44	87-68-3	
2-Hexanone	ND	ug/L	25.0	5		05/27/20 20:44	591-78-6	
p-Isopropyltoluene	ND	ug/L	5.0	5		05/27/20 20:44	99-87-6	
Methylene Chloride	ND	ug/L	25.0	5		05/27/20 20:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	5		05/27/20 20:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	5.0	5		05/27/20 20:44	1634-04-4	
Naphthalene	ND	ug/L	5.0	5		05/27/20 20:44	91-20-3	
Styrene	ND	ug/L	5.0	5		05/27/20 20:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	5		05/27/20 20:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	5		05/27/20 20:44	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-16 **Lab ID: 92478032023** Collected: 05/13/20 18:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	5.0	5		05/27/20 20:44	127-18-4	
Toluene	ND	ug/L	5.0	5		05/27/20 20:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	5		05/27/20 20:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	5		05/27/20 20:44	120-82-1	
1,1,1-Trichloroethane	**487**	ug/L	5.0	5		05/27/20 20:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	5		05/27/20 20:44	79-00-5	
Trichloroethene	**10.7**	ug/L	5.0	5		05/27/20 20:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	5		05/27/20 20:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	5.0	5		05/27/20 20:44	96-18-4	
Vinyl acetate	ND	ug/L	10.0	5		05/27/20 20:44	108-05-4	
Vinyl chloride	ND	ug/L	5.0	5		05/27/20 20:44	75-01-4	
Xylene (Total)	ND	ug/L	5.0	5		05/27/20 20:44	1330-20-7	
m&p-Xylene	ND	ug/L	10.0	5		05/27/20 20:44	179601-23-1	
o-Xylene	ND	ug/L	5.0	5		05/27/20 20:44	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	5		05/27/20 20:44	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	5		05/27/20 20:44	17060-07-0	
Toluene-d8 (S)	98	%	70-130	5		05/27/20 20:44	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**39.2**	ug/L	2.0	1		05/21/20 15:51	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	50-150	1		05/21/20 15:51	17060-07-0	
Toluene-d8 (S)	106	%	50-150	1		05/21/20 15:51	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-01 **Lab ID: 92478032024** Collected: 05/14/20 10:18 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 19:58	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 19:58	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 19:58	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 19:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 19:58	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 19:58	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 19:58	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 19:58	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 19:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 19:58	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 19:58	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 19:58	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 19:58	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 19:58	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 19:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 19:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 19:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 19:58	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 19:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 19:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/26/20 19:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/26/20 19:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/26/20 19:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 19:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 19:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 19:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 19:58	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 19:58	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 19:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 19:58	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 19:58	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 19:58	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 19:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 19:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 19:58	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 19:58	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 19:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 19:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 19:58	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: MW-01 **Lab ID: 92478032024** Collected: 05/14/20 10:18 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 19:58	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 19:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 19:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/26/20 19:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 19:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 19:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 19:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 19:58	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 19:58	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 19:58	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 19:58	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 19:58	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 19:58	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		05/26/20 19:58	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		05/26/20 19:58	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		05/26/20 19:58	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 14:12	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	91	%	50-150	1		05/21/20 14:12	17060-07-0	
Toluene-d8 (S)	92	%	50-150	1		05/21/20 14:12	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Trip Blank C **Lab ID: 92478032025** Collected: 05/14/20 00:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 17:31	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 17:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 17:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 17:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 17:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 17:31	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 17:31	74-83-9	IK
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 17:31	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 17:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 17:31	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 17:31	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 17:31	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 17:31	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 17:31	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 17:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 17:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 17:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 17:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 17:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 17:31	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/26/20 17:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/26/20 17:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/26/20 17:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 17:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 17:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 17:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 17:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 17:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 17:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 17:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 17:31	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 17:31	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 17:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 17:31	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/26/20 17:31	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 17:31	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 17:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 17:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 17:31	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 17:31	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 17:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 17:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 17:31	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex onsite
Pace Project No.: 92478032

Sample: Trip Blank C **Lab ID: 92478032025** Collected: 05/14/20 00:00 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 17:31	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 17:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 17:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/26/20 17:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 17:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 17:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 17:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 17:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 17:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 17:31	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 17:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 17:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 17:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-130	1		05/26/20 17:31	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1		05/26/20 17:31	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		05/26/20 17:31	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	ND	ug/L	2.0	1		05/21/20 13:33	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	94	%	50-150	1		05/21/20 13:33	17060-07-0	
Toluene-d8 (S)	110	%	50-150	1		05/21/20 13:33	2037-26-5	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 542927
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032001, 92478032002, 92478032003, 92478032004, 92478032005, 92478032006, 92478032007, 92478032008, 92478032009, 92478032010, 92478032011, 92478032012

METHOD BLANK: 2892230
Matrix: Water
Associated Lab Samples: 92478032001, 92478032002, 92478032003, 92478032004, 92478032005, 92478032006, 92478032007, 92478032008, 92478032009, 92478032010, 92478032011, 92478032012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1-Dichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1-Dichloroethene	ug/L	ND	1.0	05/24/20 00:00	
1,1-Dichloropropene	ug/L	ND	1.0	05/24/20 00:00	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	IH
1,2,3-Trichloropropane	ug/L	ND	1.0	05/24/20 00:00	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	05/24/20 00:00	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichloropropane	ug/L	ND	1.0	05/24/20 00:00	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
1,3-Dichloropropane	ug/L	ND	1.0	05/24/20 00:00	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
2,2-Dichloropropane	ug/L	ND	1.0	05/24/20 00:00	
2-Butanone (MEK)	ug/L	ND	5.0	05/24/20 00:00	
2-Chlorotoluene	ug/L	ND	1.0	05/24/20 00:00	
2-Hexanone	ug/L	ND	5.0	05/24/20 00:00	
4-Chlorotoluene	ug/L	ND	1.0	05/24/20 00:00	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/24/20 00:00	
Acetone	ug/L	ND	25.0	05/24/20 00:00	
Benzene	ug/L	ND	1.0	05/24/20 00:00	
Bromobenzene	ug/L	ND	1.0	05/24/20 00:00	
Bromochloromethane	ug/L	ND	1.0	05/24/20 00:00	
Bromodichloromethane	ug/L	ND	1.0	05/24/20 00:00	
Bromoform	ug/L	ND	1.0	05/24/20 00:00	
Bromomethane	ug/L	ND	2.0	05/24/20 00:00	v2
Carbon tetrachloride	ug/L	ND	1.0	05/24/20 00:00	
Chlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
Chloroethane	ug/L	ND	1.0	05/24/20 00:00	
Chloroform	ug/L	ND	5.0	05/24/20 00:00	
Chloromethane	ug/L	ND	1.0	05/24/20 00:00	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/24/20 00:00	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/24/20 00:00	
Dibromochloromethane	ug/L	ND	1.0	05/24/20 00:00	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

METHOD BLANK: 2892230 Matrix: Water

Associated Lab Samples: 92478032001, 92478032002, 92478032003, 92478032004, 92478032005, 92478032006, 92478032007, 92478032008, 92478032009, 92478032010, 92478032011, 92478032012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	ND	1.0	05/24/20 00:00	
Dichlorodifluoromethane	ug/L	ND	1.0	05/24/20 00:00	
Diisopropyl ether	ug/L	ND	1.0	05/24/20 00:00	
Ethylbenzene	ug/L	ND	1.0	05/24/20 00:00	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/24/20 00:00	
m&p-Xylene	ug/L	ND	2.0	05/24/20 00:00	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/24/20 00:00	
Methylene Chloride	ug/L	ND	5.0	05/24/20 00:00	
Naphthalene	ug/L	ND	1.0	05/24/20 00:00	
o-Xylene	ug/L	ND	1.0	05/24/20 00:00	
p-Isopropyltoluene	ug/L	ND	1.0	05/24/20 00:00	
Styrene	ug/L	ND	1.0	05/24/20 00:00	
Tetrachloroethene	ug/L	ND	1.0	05/24/20 00:00	
Toluene	ug/L	ND	1.0	05/24/20 00:00	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/24/20 00:00	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/24/20 00:00	
Trichloroethene	ug/L	ND	1.0	05/24/20 00:00	
Trichlorofluoromethane	ug/L	ND	1.0	05/24/20 00:00	
Vinyl acetate	ug/L	ND	2.0	05/24/20 00:00	
Vinyl chloride	ug/L	ND	1.0	05/24/20 00:00	
Xylene (Total)	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichloroethane-d4 (S)	%	108	70-130	05/24/20 00:00	
4-Bromofluorobenzene (S)	%	99	70-130	05/24/20 00:00	
Toluene-d8 (S)	%	102	70-130	05/24/20 00:00	

LABORATORY CONTROL SAMPLE: 2892231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.5	101	70-130	
1,1,1-Trichloroethane	ug/L	50	54.7	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.4	103	70-130	
1,1,2-Trichloroethane	ug/L	50	50.9	102	70-130	
1,1-Dichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethene	ug/L	50	55.0	110	70-130	
1,1-Dichloropropene	ug/L	50	52.5	105	70-130	
1,2,3-Trichlorobenzene	ug/L	50	60.5	121	70-130	IH
1,2,3-Trichloropropane	ug/L	50	47.6	95	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.4	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	52.0	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.6	105	70-130	
1,2-Dichlorobenzene	ug/L	50	51.0	102	70-130	
1,2-Dichloroethane	ug/L	50	52.4	105	70-130	
1,2-Dichloropropane	ug/L	50	50.5	101	70-130	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

LABORATORY CONTROL SAMPLE: 2892231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	50.2	100	70-130	
1,3-Dichloropropane	ug/L	50	50.7	101	70-131	
1,4-Dichlorobenzene	ug/L	50	49.3	99	70-130	
2,2-Dichloropropane	ug/L	50	44.2	88	69-130	
2-Butanone (MEK)	ug/L	100	106	106	64-135	
2-Chlorotoluene	ug/L	50	46.8	94	70-130	
2-Hexanone	ug/L	100	109	109	66-135	
4-Chlorotoluene	ug/L	50	48.7	97	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	109	109	70-130	
Acetone	ug/L	100	106	106	61-157	
Benzene	ug/L	50	51.4	103	70-130	
Bromobenzene	ug/L	50	46.8	94	70-130	
Bromochloromethane	ug/L	50	50.4	101	70-130	
Bromodichloromethane	ug/L	50	53.9	108	70-130	
Bromoform	ug/L	50	43.8	88	70-130	
Bromomethane	ug/L	50	33.3	67	38-130	v3
Carbon tetrachloride	ug/L	50	58.2	116	70-130	
Chlorobenzene	ug/L	50	50.6	101	70-130	
Chloroethane	ug/L	50	43.6	87	37-142	
Chloroform	ug/L	50	52.8	106	70-130	
Chloromethane	ug/L	50	34.8	70	48-130	
cis-1,2-Dichloroethene	ug/L	50	49.8	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.6	99	70-130	
Dibromochloromethane	ug/L	50	48.7	97	70-130	
Dibromomethane	ug/L	50	52.3	105	70-130	
Dichlorodifluoromethane	ug/L	50	46.5	93	53-134	
Diisopropyl ether	ug/L	50	53.9	108	70-135	
Ethylbenzene	ug/L	50	48.1	96	70-130	
Hexachloro-1,3-butadiene	ug/L	50	50.8	102	68-132	
m&p-Xylene	ug/L	100	95.3	95	70-130	
Methyl-tert-butyl ether	ug/L	50	52.7	105	70-130	
Methylene Chloride	ug/L	50	52.9	106	67-132	
Naphthalene	ug/L	50	59.5	119	70-130	
o-Xylene	ug/L	50	49.0	98	70-131	
p-Isopropyltoluene	ug/L	50	48.1	96	70-130	
Styrene	ug/L	50	52.3	105	70-130	
Tetrachloroethene	ug/L	50	52.0	104	69-130	
Toluene	ug/L	50	48.4	97	70-130	
trans-1,2-Dichloroethene	ug/L	50	54.4	109	70-130	
trans-1,3-Dichloropropene	ug/L	50	51.1	102	70-130	
Trichloroethene	ug/L	50	50.5	101	70-130	
Trichlorofluoromethane	ug/L	50	45.7	91	63-130	
Vinyl acetate	ug/L	100	96.7	97	55-143	
Vinyl chloride	ug/L	50	52.3	105	70-131	
Xylene (Total)	ug/L	150	144	96	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

LABORATORY CONTROL SAMPLE: 2892231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE SAMPLE: 2892233

Parameter	Units	92478024015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.5	107	73-134	
1,1,1-Trichloroethane	ug/L	ND	20	34.9	175	82-143	M1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.3	102	70-136	
1,1,2-Trichloroethane	ug/L	ND	20	21.9	109	70-135	
1,1-Dichloroethane	ug/L	12.8	20	36.2	117	70-139	
1,1-Dichloroethene	ug/L	58.0	20	87.1	146	70-154	
1,1-Dichloropropene	ug/L	ND	20	24.0	120	70-149	
1,2,3-Trichlorobenzene	ug/L	ND	20	22.7	113	70-135	IH
1,2,3-Trichloropropane	ug/L	ND	20	18.5	93	71-137	
1,2,4-Trichlorobenzene	ug/L	ND	20	22.2	111	73-140	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	21.0	105	65-134	
1,2-Dibromoethane (EDB)	ug/L	ND	20	21.8	109	70-137	
1,2-Dichlorobenzene	ug/L	ND	20	20.7	104	70-133	
1,2-Dichloroethane	ug/L	ND	20	22.4	108	70-137	
1,2-Dichloropropane	ug/L	ND	20	21.6	108	70-140	
1,3-Dichlorobenzene	ug/L	ND	20	21.0	105	70-135	
1,3-Dichloropropane	ug/L	ND	20	21.3	107	70-143	
1,4-Dichlorobenzene	ug/L	ND	20	20.1	100	70-133	
2,2-Dichloropropane	ug/L	ND	20	24.6	123	61-148	
2-Butanone (MEK)	ug/L	ND	40	48.6	121	60-139	
2-Chlorotoluene	ug/L	ND	20	19.4	97	70-144	
2-Hexanone	ug/L	ND	40	44.2	111	65-138	
4-Chlorotoluene	ug/L	ND	20	21.1	105	70-137	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	44.7	112	65-135	
Acetone	ug/L	ND	40	45.4	114	60-148	
Benzene	ug/L	ND	20	21.7	109	70-151	
Bromobenzene	ug/L	ND	20	20.1	100	70-136	
Bromochloromethane	ug/L	ND	20	22.7	113	70-141	
Bromodichloromethane	ug/L	ND	20	23.6	118	70-138	
Bromoform	ug/L	ND	20	19.4	97	63-130	
Bromomethane	ug/L	ND	20	19.4	97	15-152	
Carbon tetrachloride	ug/L	ND	20	25.4	127	70-143	
Chlorobenzene	ug/L	ND	20	20.4	102	70-138	
Chloroethane	ug/L	ND	20	22.3	111	52-163	
Chloroform	ug/L	ND	20	24.2	121	70-139	
Chloromethane	ug/L	ND	20	19.8	99	41-139	
cis-1,2-Dichloroethene	ug/L	ND	20	22.1	111	70-141	
cis-1,3-Dichloropropene	ug/L	ND	20	22.3	112	70-137	
Dibromochloromethane	ug/L	ND	20	19.8	99	70-134	
Dibromomethane	ug/L	ND	20	21.9	109	70-138	

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(704)875-9092

QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

MATRIX SPIKE SAMPLE: 2892233

Parameter	Units	92478024015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Dichlorodifluoromethane	ug/L	ND	20	24.7	124	47-155	
Diisopropyl ether	ug/L	ND	20	24.8	124	63-144	
Ethylbenzene	ug/L	ND	20	20.1	101	66-153	
Hexachloro-1,3-butadiene	ug/L	ND	20	20.6	103	65-149	
m&p-Xylene	ug/L	ND	40	40.0	100	69-152	
Methyl-tert-butyl ether	ug/L	1.1	20	24.5	117	54-156	
Methylene Chloride	ug/L	ND	20	23.9	120	42-159	
Naphthalene	ug/L	ND	20	22.2	111	61-148	
o-Xylene	ug/L	ND	20	19.8	99	70-148	
p-Isopropyltoluene	ug/L	ND	20	20.9	104	70-146	
Styrene	ug/L	ND	20	20.8	104	70-135	
Tetrachloroethene	ug/L	ND	20	22.2	111	59-143	
Toluene	ug/L	ND	20	21.0	105	59-148	
trans-1,2-Dichloroethene	ug/L	ND	20	23.2	116	70-146	
trans-1,3-Dichloropropene	ug/L	ND	20	22.3	112	70-135	
Trichloroethene	ug/L	ND	20	22.5	113	70-147	
Trichlorofluoromethane	ug/L	ND	20	25.0	125	70-148	
Vinyl acetate	ug/L	ND	40	44.8	112	49-151	
Vinyl chloride	ug/L	ND	20	25.2	126	70-156	
Xylene (Total)	ug/L	ND	60	59.8	100	63-158	
1,2-Dichloroethane-d4 (S)	%				111	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 2892232

Parameter	Units	92478032010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	IH
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

SAMPLE DUPLICATE: 2892232

Parameter	Units	92478032010 Result	Dup Result	RPD	Max RPD	Qualifiers
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	v2
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	118	115			
4-Bromofluorobenzene (S)	%	99	95			
Toluene-d8 (S)	%	100	101			

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 543215
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032014, 92478032015, 92478032016, 92478032017, 92478032018, 92478032019, 92478032020, 92478032021, 92478032024, 92478032025

METHOD BLANK: 2893742
Matrix: Water
Associated Lab Samples: 92478032014, 92478032015, 92478032016, 92478032017, 92478032018, 92478032019, 92478032020, 92478032021, 92478032024, 92478032025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/26/20 16:36	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/26/20 16:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/26/20 16:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/26/20 16:36	
1,1-Dichloroethane	ug/L	ND	1.0	05/26/20 16:36	
1,1-Dichloroethene	ug/L	ND	1.0	05/26/20 16:36	
1,1-Dichloropropene	ug/L	ND	1.0	05/26/20 16:36	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/26/20 16:36	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/26/20 16:36	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/26/20 16:36	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	05/26/20 16:36	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/26/20 16:36	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/26/20 16:36	
1,2-Dichloroethane	ug/L	ND	1.0	05/26/20 16:36	
1,2-Dichloropropane	ug/L	ND	1.0	05/26/20 16:36	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/26/20 16:36	
1,3-Dichloropropane	ug/L	ND	1.0	05/26/20 16:36	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/26/20 16:36	
2,2-Dichloropropane	ug/L	ND	1.0	05/26/20 16:36	
2-Butanone (MEK)	ug/L	ND	5.0	05/26/20 16:36	
2-Chlorotoluene	ug/L	ND	1.0	05/26/20 16:36	
2-Hexanone	ug/L	ND	5.0	05/26/20 16:36	
4-Chlorotoluene	ug/L	ND	1.0	05/26/20 16:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/26/20 16:36	
Acetone	ug/L	ND	25.0	05/26/20 16:36	
Benzene	ug/L	ND	1.0	05/26/20 16:36	
Bromobenzene	ug/L	ND	1.0	05/26/20 16:36	
Bromochloromethane	ug/L	ND	1.0	05/26/20 16:36	
Bromodichloromethane	ug/L	ND	1.0	05/26/20 16:36	
Bromoform	ug/L	ND	1.0	05/26/20 16:36	
Bromomethane	ug/L	ND	2.0	05/26/20 16:36	IK
Carbon tetrachloride	ug/L	ND	1.0	05/26/20 16:36	
Chlorobenzene	ug/L	ND	1.0	05/26/20 16:36	
Chloroethane	ug/L	ND	1.0	05/26/20 16:36	
Chloroform	ug/L	ND	5.0	05/26/20 16:36	
Chloromethane	ug/L	ND	1.0	05/26/20 16:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/26/20 16:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/26/20 16:36	
Dibromochloromethane	ug/L	ND	1.0	05/26/20 16:36	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

METHOD BLANK: 2893742 Matrix: Water

Associated Lab Samples: 92478032014, 92478032015, 92478032016, 92478032017, 92478032018, 92478032019, 92478032020, 92478032021, 92478032024, 92478032025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromomethane	ug/L	ND	1.0	05/26/20 16:36	
Dichlorodifluoromethane	ug/L	ND	1.0	05/26/20 16:36	
Diisopropyl ether	ug/L	ND	1.0	05/26/20 16:36	
Ethylbenzene	ug/L	ND	1.0	05/26/20 16:36	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/26/20 16:36	
m&p-Xylene	ug/L	ND	2.0	05/26/20 16:36	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/26/20 16:36	
Methylene Chloride	ug/L	ND	5.0	05/26/20 16:36	
Naphthalene	ug/L	ND	1.0	05/26/20 16:36	
o-Xylene	ug/L	ND	1.0	05/26/20 16:36	
p-Isopropyltoluene	ug/L	ND	1.0	05/26/20 16:36	
Styrene	ug/L	ND	1.0	05/26/20 16:36	
Tetrachloroethene	ug/L	ND	1.0	05/26/20 16:36	
Toluene	ug/L	ND	1.0	05/26/20 16:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/26/20 16:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/26/20 16:36	
Trichloroethene	ug/L	ND	1.0	05/26/20 16:36	
Trichlorofluoromethane	ug/L	ND	1.0	05/26/20 16:36	
Vinyl acetate	ug/L	ND	2.0	05/26/20 16:36	
Vinyl chloride	ug/L	ND	1.0	05/26/20 16:36	
Xylene (Total)	ug/L	ND	1.0	05/26/20 16:36	
1,2-Dichloroethane-d4 (S)	%	91	70-130	05/26/20 16:36	
4-Bromofluorobenzene (S)	%	99	70-130	05/26/20 16:36	
Toluene-d8 (S)	%	98	70-130	05/26/20 16:36	

LABORATORY CONTROL SAMPLE: 2893743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.9	102	70-130	
1,1,1-Trichloroethane	ug/L	50	50.3	101	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.2	94	70-130	
1,1,2-Trichloroethane	ug/L	50	49.4	99	70-130	
1,1-Dichloroethane	ug/L	50	50.9	102	70-130	
1,1-Dichloroethene	ug/L	50	53.7	107	70-130	
1,1-Dichloropropene	ug/L	50	50.0	100	70-130	
1,2,3-Trichlorobenzene	ug/L	50	53.4	107	70-130	
1,2,3-Trichloropropane	ug/L	50	48.0	96	70-130	
1,2,4-Trichlorobenzene	ug/L	50	55.0	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	55.0	110	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.7	97	70-130	
1,2-Dichlorobenzene	ug/L	50	52.3	105	70-130	
1,2-Dichloroethane	ug/L	50	46.4	93	70-130	
1,2-Dichloropropane	ug/L	50	48.9	98	70-130	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

LABORATORY CONTROL SAMPLE: 2893743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichlorobenzene	ug/L	50	52.0	104	70-130	
1,3-Dichloropropane	ug/L	50	48.0	96	70-131	
1,4-Dichlorobenzene	ug/L	50	48.1	96	70-130	
2,2-Dichloropropane	ug/L	50	56.4	113	69-130	
2-Butanone (MEK)	ug/L	100	94.8	95	64-135	
2-Chlorotoluene	ug/L	50	50.9	102	70-130	
2-Hexanone	ug/L	100	97.9	98	66-135	
4-Chlorotoluene	ug/L	50	50.4	101	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.3	98	70-130	
Acetone	ug/L	100	100	100	61-157	
Benzene	ug/L	50	49.3	99	70-130	
Bromobenzene	ug/L	50	50.9	102	70-130	
Bromochloromethane	ug/L	50	52.0	104	70-130	
Bromodichloromethane	ug/L	50	47.6	95	70-130	
Bromoform	ug/L	50	51.4	103	70-130	
Bromomethane	ug/L	50	50.7	101	38-130	IK
Carbon tetrachloride	ug/L	50	52.5	105	70-130	
Chlorobenzene	ug/L	50	48.8	98	70-130	
Chloroethane	ug/L	50	44.7	89	37-142	
Chloroform	ug/L	50	49.0	98	70-130	
Chloromethane	ug/L	50	40.4	81	48-130	
cis-1,2-Dichloroethene	ug/L	50	49.4	99	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.8	102	70-130	
Dibromochloromethane	ug/L	50	51.5	103	70-130	
Dibromomethane	ug/L	50	49.3	99	70-130	
Dichlorodifluoromethane	ug/L	50	47.2	94	53-134	
Diisopropyl ether	ug/L	50	50.1	100	70-135	
Ethylbenzene	ug/L	50	48.3	97	70-130	
Hexachloro-1,3-butadiene	ug/L	50	55.5	111	68-132	
m&p-Xylene	ug/L	100	97.9	98	70-130	
Methyl-tert-butyl ether	ug/L	50	52.3	105	70-130	
Methylene Chloride	ug/L	50	47.5	95	67-132	
Naphthalene	ug/L	50	51.4	103	70-130	
o-Xylene	ug/L	50	49.3	99	70-131	
p-Isopropyltoluene	ug/L	50	50.1	100	70-130	
Styrene	ug/L	50	50.8	102	70-130	
Tetrachloroethene	ug/L	50	52.7	105	69-130	
Toluene	ug/L	50	48.0	96	70-130	
trans-1,2-Dichloroethene	ug/L	50	53.2	106	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.6	95	70-130	
Trichloroethene	ug/L	50	50.9	102	70-130	
Trichlorofluoromethane	ug/L	50	49.3	99	63-130	
Vinyl acetate	ug/L	100	98.0	98	55-143	
Vinyl chloride	ug/L	50	52.8	106	70-131	
Xylene (Total)	ug/L	150	147	98	70-130	
1,2-Dichloroethane-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

LABORATORY CONTROL SAMPLE: 2893743

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2893744 2893745

Parameter	Units	92478032020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	20.4	20.3	102	101	73-134	1	30	
1,1,1-Trichloroethane	ug/L	11.9	20	20	33.3	32.6	107	104	82-143	2	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.7	20.0	99	100	70-136	1	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.0	19.8	100	99	70-135	1	30	
1,1-Dichloroethane	ug/L	3.0	20	20	23.0	23.0	100	100	70-139	0	30	
1,1-Dichloroethene	ug/L	4.1	20	20	25.3	25.5	106	107	70-154	1	30	
1,1-Dichloropropene	ug/L	ND	20	20	20.6	21.0	103	105	70-149	2	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	19.5	19.9	97	99	70-135	2	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	20.1	19.8	101	99	71-137	2	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	19.7	19.7	98	99	73-140	0	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	20.5	20.4	102	102	65-134	0	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	20.9	20.7	105	104	70-137	1	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	19.4	19.4	97	97	70-133	0	30	
1,2-Dichloroethane	ug/L	ND	20	20	19.4	19.6	97	98	70-137	1	30	
1,2-Dichloropropane	ug/L	ND	20	20	19.7	20.2	98	101	70-140	3	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	19.3	19.4	97	97	70-135	0	30	
1,3-Dichloropropane	ug/L	ND	20	20	20.4	20.5	102	103	70-143	0	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	19.6	19.4	98	97	70-133	1	30	
2,2-Dichloropropane	ug/L	ND	20	20	22.2	22.3	111	111	61-148	0	30	
2-Butanone (MEK)	ug/L	ND	40	40	42.9	42.9	107	107	60-139	0	30	
2-Chlorotoluene	ug/L	ND	20	20	19.4	18.8	97	94	70-144	3	30	
2-Hexanone	ug/L	ND	40	40	43.5	42.7	109	107	65-138	2	30	
4-Chlorotoluene	ug/L	ND	20	20	19.2	18.7	96	94	70-137	3	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	40	42.9	42.4	107	106	65-135	1	30	
Acetone	ug/L	ND	40	40	45.3	43.5	113	109	60-148	4	30	
Benzene	ug/L	ND	20	20	19.7	20.2	98	101	70-151	3	30	
Bromobenzene	ug/L	ND	20	20	19.3	19.6	96	98	70-136	2	30	
Bromochloromethane	ug/L	ND	20	20	20.8	20.1	104	100	70-141	4	30	
Bromodichloromethane	ug/L	ND	20	20	20.0	20.2	100	101	70-138	1	30	
Bromoform	ug/L	ND	20	20	19.6	19.5	98	97	63-130	0	30	
Bromomethane	ug/L	ND	20	20	21.8	24.7	109	123	15-152	12	30	
Carbon tetrachloride	ug/L	ND	20	20	21.2	20.8	106	104	70-143	2	30	
Chlorobenzene	ug/L	ND	20	20	20.2	20.1	101	100	70-138	0	30	
Chloroethane	ug/L	ND	20	20	19.0	19.0	95	95	52-163	0	30	
Chloroform	ug/L	ND	20	20	19.8	19.1	99	95	70-139	4	30	
Chloromethane	ug/L	ND	20	20	17.4	17.8	87	89	41-139	2	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.7	20.1	99	100	70-141	2	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.3	20.0	101	100	70-137	1	30	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2893744 2893745

Parameter	Units	92478032020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dibromochloromethane	ug/L	ND	20	20	20.2	20.5	101	102	70-134	1	30	
Dibromomethane	ug/L	ND	20	20	20.2	20.1	101	101	70-138	0	30	
Dichlorodifluoromethane	ug/L	ND	20	20	18.5	18.6	92	93	47-155	1	30	
Diisopropyl ether	ug/L	ND	20	20	20.3	20.6	102	103	63-144	1	30	
Ethylbenzene	ug/L	ND	20	20	18.9	18.9	94	94	66-153	0	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	21.5	21.4	108	107	65-149	1	30	
m&p-Xylene	ug/L	ND	40	40	38.0	37.8	95	94	69-152	1	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.8	21.0	104	105	54-156	1	30	
Methylene Chloride	ug/L	ND	20	20	20.8	21.1	104	105	42-159	1	30	
Naphthalene	ug/L	ND	20	20	18.1	18.6	90	93	61-148	3	30	
o-Xylene	ug/L	ND	20	20	19.3	19.1	97	96	70-148	1	30	
p-Isopropyltoluene	ug/L	ND	20	20	21.0	20.7	105	103	70-146	1	30	
Styrene	ug/L	ND	20	20	19.6	19.9	98	99	70-135	1	30	
Tetrachloroethene	ug/L	ND	20	20	20.0	19.9	100	100	59-143	0	30	
Toluene	ug/L	ND	20	20	19.0	19.1	95	96	59-148	1	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.0	20.2	100	101	70-146	1	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	20.0	19.9	100	100	70-135	0	30	
Trichloroethene	ug/L	ND	20	20	21.2	21.1	106	105	70-147	1	30	
Trichlorofluoromethane	ug/L	ND	20	20	19.8	19.7	99	99	70-148	1	30	
Vinyl acetate	ug/L	ND	40	40	44.7	44.8	112	112	49-151	0	30	
Vinyl chloride	ug/L	ND	20	20	22.2	22.2	111	111	70-156	0	30	
Xylene (Total)	ug/L	ND	60	60	57.4	56.9	96	95	63-158	1	30	
1,2-Dichloroethane-d4 (S)	%						105	103	70-130			
4-Bromofluorobenzene (S)	%						100	100	70-130			
Toluene-d8 (S)	%						98	99	70-130			

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 543382
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032013

METHOD BLANK: 2894165
Matrix: Water
Associated Lab Samples: 92478032013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1-Dichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1-Dichloroethene	ug/L	ND	1.0	05/26/20 12:50	
1,1-Dichloropropene	ug/L	ND	1.0	05/26/20 12:50	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/26/20 12:50	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	05/26/20 12:50	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichloropropane	ug/L	ND	1.0	05/26/20 12:50	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,3-Dichloropropane	ug/L	ND	1.0	05/26/20 12:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
2,2-Dichloropropane	ug/L	ND	1.0	05/26/20 12:50	
2-Butanone (MEK)	ug/L	ND	5.0	05/26/20 12:50	
2-Chlorotoluene	ug/L	ND	1.0	05/26/20 12:50	
2-Hexanone	ug/L	ND	5.0	05/26/20 12:50	v1
4-Chlorotoluene	ug/L	ND	1.0	05/26/20 12:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/26/20 12:50	
Acetone	ug/L	ND	25.0	05/26/20 12:50	
Benzene	ug/L	ND	1.0	05/26/20 12:50	
Bromobenzene	ug/L	ND	1.0	05/26/20 12:50	
Bromochloromethane	ug/L	ND	1.0	05/26/20 12:50	
Bromodichloromethane	ug/L	ND	1.0	05/26/20 12:50	
Bromoform	ug/L	ND	1.0	05/26/20 12:50	
Bromomethane	ug/L	ND	2.0	05/26/20 12:50	IH
Carbon tetrachloride	ug/L	ND	1.0	05/26/20 12:50	
Chlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
Chloroethane	ug/L	ND	1.0	05/26/20 12:50	
Chloroform	ug/L	ND	5.0	05/26/20 12:50	
Chloromethane	ug/L	ND	1.0	05/26/20 12:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/26/20 12:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/26/20 12:50	
Dibromochloromethane	ug/L	ND	1.0	05/26/20 12:50	
Dibromomethane	ug/L	ND	1.0	05/26/20 12:50	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

METHOD BLANK: 2894165 Matrix: Water
Associated Lab Samples: 92478032013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	05/26/20 12:50	
Diisopropyl ether	ug/L	ND	1.0	05/26/20 12:50	
Ethylbenzene	ug/L	ND	1.0	05/26/20 12:50	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/26/20 12:50	IH
m&p-Xylene	ug/L	ND	2.0	05/26/20 12:50	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/26/20 12:50	
Methylene Chloride	ug/L	ND	5.0	05/26/20 12:50	v1
Naphthalene	ug/L	ND	1.0	05/26/20 12:50	
o-Xylene	ug/L	ND	1.0	05/26/20 12:50	
p-Isopropyltoluene	ug/L	ND	1.0	05/26/20 12:50	
Styrene	ug/L	ND	1.0	05/26/20 12:50	
Tetrachloroethene	ug/L	ND	1.0	05/26/20 12:50	
Toluene	ug/L	ND	1.0	05/26/20 12:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/26/20 12:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/26/20 12:50	
Trichloroethene	ug/L	ND	1.0	05/26/20 12:50	
Trichlorofluoromethane	ug/L	ND	1.0	05/26/20 12:50	
Vinyl acetate	ug/L	ND	2.0	05/26/20 12:50	v1
Vinyl chloride	ug/L	ND	1.0	05/26/20 12:50	
Xylene (Total)	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichloroethane-d4 (S)	%	115	70-130	05/26/20 12:50	
4-Bromofluorobenzene (S)	%	100	70-130	05/26/20 12:50	
Toluene-d8 (S)	%	98	70-130	05/26/20 12:50	

LABORATORY CONTROL SAMPLE: 2894166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.2	108	70-130	
1,1,1-Trichloroethane	ug/L	50	49.3	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	53.0	106	70-130	
1,1,2-Trichloroethane	ug/L	50	47.6	95	70-130	
1,1-Dichloroethane	ug/L	50	51.9	104	70-130	
1,1-Dichloroethene	ug/L	50	56.0	112	70-130	
1,1-Dichloropropene	ug/L	50	50.5	101	70-130	
1,2,3-Trichlorobenzene	ug/L	50	50.1	100	70-130	
1,2,3-Trichloropropane	ug/L	50	51.5	103	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.4	105	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.4	89	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.1	108	70-130	
1,2-Dichlorobenzene	ug/L	50	55.5	111	70-130	
1,2-Dichloroethane	ug/L	50	52.3	105	70-130	
1,2-Dichloropropane	ug/L	50	53.1	106	70-130	
1,3-Dichlorobenzene	ug/L	50	55.7	111	70-130	
1,3-Dichloropropane	ug/L	50	56.2	112	70-131	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

LABORATORY CONTROL SAMPLE: 2894166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	53.8	108	70-130	
2,2-Dichloropropane	ug/L	50	48.4	97	69-130	
2-Butanone (MEK)	ug/L	100	112	112	64-135	
2-Chlorotoluene	ug/L	50	54.3	109	70-130	
2-Hexanone	ug/L	100	123	123	66-135	v1
4-Chlorotoluene	ug/L	50	54.8	110	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	113	113	70-130	
Acetone	ug/L	100	115	115	61-157	
Benzene	ug/L	50	52.4	105	70-130	
Bromobenzene	ug/L	50	54.5	109	70-130	
Bromochloromethane	ug/L	50	45.8	92	70-130	
Bromodichloromethane	ug/L	50	49.0	98	70-130	
Bromoform	ug/L	50	50.8	102	70-130	
Bromomethane	ug/L	50	41.8	84	38-130	IH
Carbon tetrachloride	ug/L	50	52.6	105	70-130	
Chlorobenzene	ug/L	50	53.6	107	70-130	
Chloroethane	ug/L	50	42.2	84	37-142	
Chloroform	ug/L	50	49.5	99	70-130	
Chloromethane	ug/L	50	49.8	100	48-130	
cis-1,2-Dichloroethene	ug/L	50	51.2	102	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.5	99	70-130	
Dibromochloromethane	ug/L	50	55.7	111	70-130	
Dibromomethane	ug/L	50	50.5	101	70-130	
Dichlorodifluoromethane	ug/L	50	44.2	88	53-134	
Diisopropyl ether	ug/L	50	58.7	117	70-135	
Ethylbenzene	ug/L	50	54.9	110	70-130	
Hexachloro-1,3-butadiene	ug/L	50	49.7	99	68-132	IH
m&p-Xylene	ug/L	100	109	109	70-130	
Methyl-tert-butyl ether	ug/L	50	52.4	105	70-130	
Methylene Chloride	ug/L	50	60.8	122	67-132	v1
Naphthalene	ug/L	50	49.2	98	70-130	
o-Xylene	ug/L	50	54.1	108	70-131	
p-Isopropyltoluene	ug/L	50	56.8	114	70-130	
Styrene	ug/L	50	56.9	114	70-130	
Tetrachloroethene	ug/L	50	53.7	107	69-130	
Toluene	ug/L	50	46.8	94	70-130	
trans-1,2-Dichloroethene	ug/L	50	54.4	109	70-130	
trans-1,3-Dichloropropene	ug/L	50	49.1	98	70-130	
Trichloroethene	ug/L	50	50.5	101	70-130	
Trichlorofluoromethane	ug/L	50	43.4	87	63-130	
Vinyl acetate	ug/L	100	132	132	55-143	v1
Vinyl chloride	ug/L	50	50.9	102	70-131	
Xylene (Total)	ug/L	150	163	109	70-130	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2894167 2894168

Parameter	Units	92478005001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	120	139	120	139	73-134	15	30	H1,M1
1,1,1-Trichloroethane	ug/L	ND	100	100	122	140	122	140	82-143	14	30	H1
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	121	140	121	140	70-136	15	30	H1,M1
1,1,2-Trichloroethane	ug/L	ND	100	100	119	133	119	133	70-135	11	30	H1
1,1-Dichloroethane	ug/L	ND	100	100	139	149	139	149	70-139	6	30	H1,M1
1,1-Dichloroethene	ug/L	ND	100	100	147	164	147	164	70-154	11	30	H1,M1
1,1-Dichloropropene	ug/L	ND	100	100	131	147	131	147	70-149	11	30	H1
1,2,3-Trichlorobenzene	ug/L	ND	100	100	116	130	116	130	70-135	11	30	H1
1,2,3-Trichloropropane	ug/L	ND	100	100	123	144	123	144	71-137	16	30	H1,M1
1,2,4-Trichlorobenzene	ug/L	ND	100	100	123	123	123	123	73-140	0	30	H1
1,2-Dibromo-3-chloropropane	ug/L	ND	100	100	109	113	109	113	65-134	3	30	H1
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	125	146	125	146	70-137	15	30	H1,M1
1,2-Dichlorobenzene	ug/L	ND	100	100	139	140	139	140	70-133	1	30	H1,M1
1,2-Dichloroethane	ug/L	ND	100	100	137	148	137	148	70-137	8	30	H1,M1
1,2-Dichloropropane	ug/L	ND	100	100	131	152	131	152	70-140	15	30	H1,M1
1,3-Dichlorobenzene	ug/L	ND	100	100	133	134	133	134	70-135	1	30	H1
1,3-Dichloropropane	ug/L	ND	100	100	134	156	134	156	70-143	15	30	H1,M1
1,4-Dichlorobenzene	ug/L	ND	100	100	130	134	130	134	70-133	3	30	H1,M1
2,2-Dichloropropane	ug/L	ND	100	100	128	138	128	138	61-148	7	30	H1
2-Butanone (MEK)	ug/L	ND	200	200	274	298	137	149	60-139	8	30	H1,M1
2-Chlorotoluene	ug/L	ND	100	100	145	143	145	143	70-144	1	30	H1,M1
2-Hexanone	ug/L	ND	200	200	279	324	139	162	65-138	15	30	H1,M1, v1
4-Chlorotoluene	ug/L	ND	100	100	134	136	134	136	70-137	1	30	H1
4-Methyl-2-pentanone (MIBK)	ug/L	ND	200	200	285	322	139	157	65-135	12	30	H1,M1
Acetone	ug/L	ND	200	200	276	304	138	152	60-148	10	30	H1,M1
Benzene	ug/L	346	100	100	471	502	126	157	70-151	6	30	H1,M1
Bromobenzene	ug/L	ND	100	100	138	138	138	138	70-136	0	30	H1,M1
Bromochloromethane	ug/L	ND	100	100	122	135	122	135	70-141	10	30	H1
Bromodichloromethane	ug/L	ND	100	100	118	133	118	133	70-138	12	30	H1
Bromoform	ug/L	ND	100	100	106	117	106	117	63-130	9	30	H1
Bromomethane	ug/L	ND	100	100	136	163	136	163	15-152	18	30	H1,IH, M1
Carbon tetrachloride	ug/L	ND	100	100	127	142	127	142	70-143	12	30	H1
Chlorobenzene	ug/L	ND	100	100	134	148	134	148	70-138	10	30	H1,M1
Chloroethane	ug/L	ND	100	100	129	136	129	136	52-163	5	30	H1
Chloroform	ug/L	ND	100	100	127	140	127	140	70-139	10	30	H1,M1
Chloromethane	ug/L	ND	100	100	132	144	130	143	41-139	9	30	H1,M1
cis-1,2-Dichloroethene	ug/L	ND	100	100	134	149	134	149	70-141	10	30	H1,M1
cis-1,3-Dichloropropene	ug/L	ND	100	100	126	135	126	135	70-137	7	30	H1
Dibromochloromethane	ug/L	ND	100	100	122	131	122	131	70-134	7	30	H1
Dibromomethane	ug/L	ND	100	100	126	141	126	141	70-138	12	30	H1,M1
Dichlorodifluoromethane	ug/L	ND	100	100	121	131	121	131	47-155	7	30	H1
Diisopropyl ether	ug/L	8.9	100	100	158	174	149	165	63-144	10	30	H1,M1
Ethylbenzene	ug/L	205	100	100	327	347	122	141	66-153	6	30	H1

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2894167 2894168

Parameter	Units	92478005001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Hexachloro-1,3-butadiene	ug/L	ND	100	100	132	135	132	135	65-149	2	30	H1,IH
m&p-Xylene	ug/L	719	200	200	969	998	125	140	69-152	3	30	H1
Methyl-tert-butyl ether	ug/L	27.4	100	100	157	168	129	141	54-156	7	30	H1
Methylene Chloride	ug/L	ND	100	100	155	170	155	170	42-159	9	30	H1,M1, v1
Naphthalene	ug/L	110	100	100	230	229	120	120	61-148	0	30	H1
o-Xylene	ug/L	378	100	100	512	521	135	143	70-148	2	30	H1
p-Isopropyltoluene	ug/L	ND	100	100	155	158	155	158	70-146	1	30	H1,M1
Styrene	ug/L	ND	100	100	135	144	132	141	70-135	7	30	H1,M1
Tetrachloroethene	ug/L	ND	100	100	128	147	128	147	59-143	14	30	H1,M1
Toluene	ug/L	644	100	100	747	776	103	133	59-148	4	30	H1
trans-1,2-Dichloroethene	ug/L	ND	100	100	141	154	141	154	70-146	9	30	H1,M1
trans-1,3-Dichloropropene	ug/L	ND	100	100	121	133	121	133	70-135	9	30	H1
Trichloroethene	ug/L	ND	100	100	131	139	131	139	70-147	6	30	H1
Trichlorofluoromethane	ug/L	ND	100	100	114	129	114	129	70-148	13	30	H1
Vinyl acetate	ug/L	ND	200	200	322	367	161	184	49-151	13	30	H1,M1, v1
Vinyl chloride	ug/L	ND	100	100	136	147	136	147	70-156	8	30	H1
Xylene (Total)	ug/L	1100	300	300	1480	1520	128	141	63-158	3	30	
1,2-Dichloroethane-d4 (S)	%						111	113	70-130			
4-Bromofluorobenzene (S)	%						100	102	70-130			
Toluene-d8 (S)	%						100	103	70-130			

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 543671
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032022, 92478032023

METHOD BLANK: 2895491
Matrix: Water
Associated Lab Samples: 92478032022, 92478032023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/27/20 13:06	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/27/20 13:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/27/20 13:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/27/20 13:06	
1,1-Dichloroethane	ug/L	ND	1.0	05/27/20 13:06	
1,1-Dichloroethene	ug/L	ND	1.0	05/27/20 13:06	
1,1-Dichloropropene	ug/L	ND	1.0	05/27/20 13:06	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/27/20 13:06	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/27/20 13:06	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/27/20 13:06	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	05/27/20 13:06	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/27/20 13:06	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/27/20 13:06	
1,2-Dichloroethane	ug/L	ND	1.0	05/27/20 13:06	
1,2-Dichloropropane	ug/L	ND	1.0	05/27/20 13:06	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/27/20 13:06	
1,3-Dichloropropane	ug/L	ND	1.0	05/27/20 13:06	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/27/20 13:06	
2,2-Dichloropropane	ug/L	ND	1.0	05/27/20 13:06	
2-Butanone (MEK)	ug/L	ND	5.0	05/27/20 13:06	
2-Chlorotoluene	ug/L	ND	1.0	05/27/20 13:06	
2-Hexanone	ug/L	ND	5.0	05/27/20 13:06	
4-Chlorotoluene	ug/L	ND	1.0	05/27/20 13:06	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/27/20 13:06	
Acetone	ug/L	ND	25.0	05/27/20 13:06	
Benzene	ug/L	ND	1.0	05/27/20 13:06	
Bromobenzene	ug/L	ND	1.0	05/27/20 13:06	
Bromochloromethane	ug/L	ND	1.0	05/27/20 13:06	
Bromodichloromethane	ug/L	ND	1.0	05/27/20 13:06	
Bromoform	ug/L	ND	1.0	05/27/20 13:06	
Bromomethane	ug/L	ND	2.0	05/27/20 13:06	IK,v2
Carbon tetrachloride	ug/L	ND	1.0	05/27/20 13:06	
Chlorobenzene	ug/L	ND	1.0	05/27/20 13:06	
Chloroethane	ug/L	ND	1.0	05/27/20 13:06	
Chloroform	ug/L	ND	5.0	05/27/20 13:06	
Chloromethane	ug/L	ND	1.0	05/27/20 13:06	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/27/20 13:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/27/20 13:06	
Dibromochloromethane	ug/L	ND	1.0	05/27/20 13:06	
Dibromomethane	ug/L	ND	1.0	05/27/20 13:06	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

METHOD BLANK: 2895491 Matrix: Water
Associated Lab Samples: 92478032022, 92478032023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	05/27/20 13:06	
Diisopropyl ether	ug/L	ND	1.0	05/27/20 13:06	
Ethylbenzene	ug/L	ND	1.0	05/27/20 13:06	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/27/20 13:06	
m&p-Xylene	ug/L	ND	2.0	05/27/20 13:06	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/27/20 13:06	
Methylene Chloride	ug/L	ND	5.0	05/27/20 13:06	
Naphthalene	ug/L	ND	1.0	05/27/20 13:06	
o-Xylene	ug/L	ND	1.0	05/27/20 13:06	
p-Isopropyltoluene	ug/L	ND	1.0	05/27/20 13:06	
Styrene	ug/L	ND	1.0	05/27/20 13:06	
Tetrachloroethene	ug/L	ND	1.0	05/27/20 13:06	
Toluene	ug/L	ND	1.0	05/27/20 13:06	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/27/20 13:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/27/20 13:06	
Trichloroethene	ug/L	ND	1.0	05/27/20 13:06	
Trichlorofluoromethane	ug/L	ND	1.0	05/27/20 13:06	
Vinyl acetate	ug/L	ND	2.0	05/27/20 13:06	
Vinyl chloride	ug/L	ND	1.0	05/27/20 13:06	
Xylene (Total)	ug/L	ND	1.0	05/27/20 13:06	
1,2-Dichloroethane-d4 (S)	%	92	70-130	05/27/20 13:06	
4-Bromofluorobenzene (S)	%	98	70-130	05/27/20 13:06	
Toluene-d8 (S)	%	99	70-130	05/27/20 13:06	

LABORATORY CONTROL SAMPLE: 2895492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	47.9	96	70-130	
1,1,1-Trichloroethane	ug/L	50	46.6	93	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	46.2	92	70-130	
1,1,2-Trichloroethane	ug/L	50	47.5	95	70-130	
1,1-Dichloroethane	ug/L	50	47.9	96	70-130	
1,1-Dichloroethene	ug/L	50	48.9	98	70-130	
1,1-Dichloropropene	ug/L	50	47.6	95	70-130	
1,2,3-Trichlorobenzene	ug/L	50	48.7	97	70-130	
1,2,3-Trichloropropane	ug/L	50	47.4	95	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.6	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	52.1	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.1	96	70-130	
1,2-Dichlorobenzene	ug/L	50	47.7	95	70-130	
1,2-Dichloroethane	ug/L	50	43.3	87	70-130	
1,2-Dichloropropane	ug/L	50	47.0	94	70-130	
1,3-Dichlorobenzene	ug/L	50	46.9	94	70-130	
1,3-Dichloropropane	ug/L	50	46.6	93	70-131	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

LABORATORY CONTROL SAMPLE: 2895492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	47.1	94	70-130	
2,2-Dichloropropane	ug/L	50	56.5	113	69-130	
2-Butanone (MEK)	ug/L	100	90.1	90	64-135	
2-Chlorotoluene	ug/L	50	47.5	95	70-130	
2-Hexanone	ug/L	100	94.5	94	66-135	
4-Chlorotoluene	ug/L	50	47.2	94	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	92.5	93	70-130	
Acetone	ug/L	100	96.6	97	61-157	
Benzene	ug/L	50	47.7	95	70-130	
Bromobenzene	ug/L	50	46.8	94	70-130	
Bromochloromethane	ug/L	50	51.8	104	70-130	
Bromodichloromethane	ug/L	50	45.6	91	70-130	
Bromoform	ug/L	50	47.1	94	70-130	
Bromomethane	ug/L	50	42.5	85	38-130	IK,v3
Carbon tetrachloride	ug/L	50	49.9	100	70-130	
Chlorobenzene	ug/L	50	46.4	93	70-130	
Chloroethane	ug/L	50	48.5	97	37-142	
Chloroform	ug/L	50	45.8	92	70-130	
Chloromethane	ug/L	50	36.8	74	48-130	
cis-1,2-Dichloroethene	ug/L	50	46.7	93	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.5	101	70-130	
Dibromochloromethane	ug/L	50	48.5	97	70-130	
Dibromomethane	ug/L	50	46.8	94	70-130	
Dichlorodifluoromethane	ug/L	50	41.3	83	53-134	
Diisopropyl ether	ug/L	50	46.4	93	70-135	
Ethylbenzene	ug/L	50	46.7	93	70-130	
Hexachloro-1,3-butadiene	ug/L	50	52.3	105	68-132	
m&p-Xylene	ug/L	100	95.1	95	70-130	
Methyl-tert-butyl ether	ug/L	50	49.7	99	70-130	
Methylene Chloride	ug/L	50	45.3	91	67-132	
Naphthalene	ug/L	50	49.5	99	70-130	
o-Xylene	ug/L	50	47.0	94	70-131	
p-Isopropyltoluene	ug/L	50	48.1	96	70-130	
Styrene	ug/L	50	48.5	97	70-130	
Tetrachloroethene	ug/L	50	50.9	102	69-130	
Toluene	ug/L	50	46.1	92	70-130	
trans-1,2-Dichloroethene	ug/L	50	49.0	98	70-130	
trans-1,3-Dichloropropene	ug/L	50	46.5	93	70-130	
Trichloroethene	ug/L	50	48.5	97	70-130	
Trichlorofluoromethane	ug/L	50	48.1	96	63-130	
Vinyl acetate	ug/L	100	91.7	92	55-143	
Vinyl chloride	ug/L	50	47.1	94	70-131	
Xylene (Total)	ug/L	150	142	95	70-130	
1,2-Dichloroethane-d4 (S)	%			87	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2895493 2895494

Parameter	Units	92478032022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	103	103	103	103	73-134	0	30	
1,1,1-Trichloroethane	ug/L	518	100	100	573	584	55	67	82-143	2	30	M1
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	92.4	95.6	92	96	70-136	3	30	
1,1,2-Trichloroethane	ug/L	ND	100	100	97.2	97.4	97	97	70-135	0	30	
1,1-Dichloroethane	ug/L	425	100	100	477	482	52	57	70-139	1	30	M1
1,1-Dichloroethene	ug/L	594	100	100	643	659	50	66	70-154	2	30	M1
1,1-Dichloropropene	ug/L	ND	100	100	95.3	96.1	95	96	70-149	1	30	
1,2,3-Trichlorobenzene	ug/L	ND	100	100	104	104	104	104	70-135	0	30	
1,2,3-Trichloropropane	ug/L	ND	100	100	68.1	69.9	68	70	71-137	3	30	M1
1,2,4-Trichlorobenzene	ug/L	ND	100	100	104	107	104	107	73-140	3	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	100	100	103	108	103	108	65-134	5	30	
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	98.0	102	98	102	70-137	4	30	
1,2-Dichlorobenzene	ug/L	ND	100	100	102	103	102	103	70-133	1	30	
1,2-Dichloroethane	ug/L	ND	100	100	87.9	90.0	88	90	70-137	2	30	
1,2-Dichloropropane	ug/L	ND	100	100	96.2	96.0	96	96	70-140	0	30	
1,3-Dichlorobenzene	ug/L	ND	100	100	99.9	98.9	100	99	70-135	1	30	
1,3-Dichloropropane	ug/L	ND	100	100	97.7	101	98	101	70-143	3	30	
1,4-Dichlorobenzene	ug/L	ND	100	100	98.0	99.6	98	100	70-133	2	30	
2,2-Dichloropropane	ug/L	ND	100	100	98.3	101	98	101	61-148	3	30	
2-Butanone (MEK)	ug/L	ND	200	200	161	162	80	81	60-139	1	30	
2-Chlorotoluene	ug/L	ND	100	100	101	104	101	104	70-144	2	30	
2-Hexanone	ug/L	ND	200	200	181	184	91	92	65-138	2	30	
4-Chlorotoluene	ug/L	ND	100	100	101	102	101	102	70-137	0	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	200	200	179	177	90	89	65-135	1	30	
Acetone	ug/L	ND	200	200	188	190	94	95	60-148	1	30	
Benzene	ug/L	ND	100	100	100	99.3	100	99	70-151	1	30	
Bromobenzene	ug/L	ND	100	100	102	107	102	107	70-136	5	30	
Bromochloromethane	ug/L	ND	100	100	105	106	105	106	70-141	1	30	
Bromodichloromethane	ug/L	ND	100	100	93.0	92.8	93	93	70-138	0	30	
Bromoform	ug/L	ND	100	100	95.6	100	96	100	63-130	5	30	
Bromomethane	ug/L	ND	100	100	92.5	94.7	92	95	15-152	2	30	IK,v3
Carbon tetrachloride	ug/L	ND	100	100	107	107	107	107	70-143	0	30	
Chlorobenzene	ug/L	ND	100	100	98.7	101	99	101	70-138	2	30	
Chloroethane	ug/L	10.1	100	100	102	106	91	96	52-163	4	30	
Chloroform	ug/L	ND	100	100	88.3	89.2	88	89	70-139	1	30	
Chloromethane	ug/L	ND	100	100	61.5	64.9	61	65	41-139	5	30	
cis-1,2-Dichloroethene	ug/L	ND	100	100	95.8	95.9	92	92	70-141	0	30	
cis-1,3-Dichloropropene	ug/L	ND	100	100	98.5	100	98	100	70-137	2	30	
Dibromochloromethane	ug/L	ND	100	100	97.3	99.9	97	100	70-134	3	30	
Dibromomethane	ug/L	ND	100	100	103	103	103	103	70-138	0	30	
Dichlorodifluoromethane	ug/L	ND	100	100	81.2	83.4	81	83	47-155	3	30	
Diisopropyl ether	ug/L	ND	100	100	87.8	88.7	88	89	63-144	1	30	
Ethylbenzene	ug/L	ND	100	100	100	100	100	100	66-153	0	30	
Hexachloro-1,3-butadiene	ug/L	ND	100	100	106	114	106	114	65-149	7	30	

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2895493 2895494

Parameter	Units	92478032022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
m&p-Xylene	ug/L	ND	200	200	208	207	102	102	69-152	0	30	
Methyl-tert-butyl ether	ug/L	ND	100	100	100	101	100	101	54-156	1	30	
Methylene Chloride	ug/L	ND	100	100	89.5	89.3	89	89	42-159	0	30	
Naphthalene	ug/L	ND	100	100	102	101	102	101	61-148	1	30	
o-Xylene	ug/L	ND	100	100	103	100	102	99	70-148	3	30	
p-Isopropyltoluene	ug/L	ND	100	100	98.8	101	99	101	70-146	3	30	
Styrene	ug/L	ND	100	100	100	102	100	102	70-135	2	30	
Tetrachloroethene	ug/L	ND	100	100	116	120	112	116	59-143	3	30	
Toluene	ug/L	ND	100	100	102	101	100	99	59-148	1	30	
trans-1,2-Dichloroethene	ug/L	ND	100	100	99.9	99.1	100	99	70-146	1	30	
trans-1,3-Dichloropropene	ug/L	ND	100	100	92.3	94.0	92	94	70-135	2	30	
Trichloroethene	ug/L	12.0	100	100	115	117	103	105	70-147	2	30	
Trichlorofluoromethane	ug/L	ND	100	100	92.2	93.3	92	93	70-148	1	30	
Vinyl acetate	ug/L	ND	200	200	171	169	85	85	49-151	1	30	
Vinyl chloride	ug/L	ND	100	100	94.1	97.7	91	94	70-156	4	30	
Xylene (Total)	ug/L	ND	300	300	311	307	104	102	63-158	1	30	
1,2-Dichloroethane-d4 (S)	%						91	90	70-130			
4-Bromofluorobenzene (S)	%						103	103	70-130			
Toluene-d8 (S)	%						98	96	70-130			

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 542729
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032001, 92478032002, 92478032003, 92478032004

METHOD BLANK: 2891387 Matrix: Water
Associated Lab Samples: 92478032001, 92478032002, 92478032003, 92478032004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	05/20/20 17:52	
1,2-Dichloroethane-d4 (S)	%	98	50-150	05/20/20 17:52	
Toluene-d8 (S)	%	106	50-150	05/20/20 17:52	

LABORATORY CONTROL SAMPLE: 2891388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.3	97	70-130	
1,2-Dichloroethane-d4 (S)	%			106	50-150	
Toluene-d8 (S)	%			101	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2891389 2891390

Parameter	Units	92478023002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	99.8	20	20	120	127	99	134	50-150	6	30	E
1,2-Dichloroethane-d4 (S)	%						95	95	50-150		30	
Toluene-d8 (S)	%						99	115	50-150		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 542730
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032005, 92478032006, 92478032007, 92478032008, 92478032009, 92478032010, 92478032011, 92478032012

METHOD BLANK: 2891393
Matrix: Water
Associated Lab Samples: 92478032005, 92478032006, 92478032007, 92478032008, 92478032009, 92478032010, 92478032011, 92478032012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	05/20/20 18:12	
1,2-Dichloroethane-d4 (S)	%	107	50-150	05/20/20 18:12	
Toluene-d8 (S)	%	101	50-150	05/20/20 18:12	

LABORATORY CONTROL SAMPLE: 2891394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.7	93	70-130	
1,2-Dichloroethane-d4 (S)	%			97	50-150	
Toluene-d8 (S)	%			98	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2891395 2891396

Parameter	Units	92478032005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	18.7	17.9	92	88	50-150	4	30	
1,2-Dichloroethane-d4 (S)	%						101	104	50-150		30	
Toluene-d8 (S)	%						106	108	50-150		30	

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 542881
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032013, 92478032014, 92478032015, 92478032016, 92478032017, 92478032018, 92478032019, 92478032020, 92478032021, 92478032023, 92478032024, 92478032025

METHOD BLANK: 2892029
Matrix: Water
Associated Lab Samples: 92478032013, 92478032014, 92478032015, 92478032016, 92478032017, 92478032018, 92478032019, 92478032020, 92478032021, 92478032023, 92478032024, 92478032025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	05/21/20 12:13	
1,2-Dichloroethane-d4 (S)	%	94	50-150	05/21/20 12:13	
Toluene-d8 (S)	%	105	50-150	05/21/20 12:13	

LABORATORY CONTROL SAMPLE: 2892030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.4	97	70-130	
1,2-Dichloroethane-d4 (S)	%			92	50-150	
Toluene-d8 (S)	%			105	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2892586 2892587

Parameter	Units	92478032017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	18.8	19.1	90	92	50-150	2	30	
1,2-Dichloroethane-d4 (S)	%						106	105	50-150		30	
Toluene-d8 (S)	%						111	110	50-150		30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kop-Flex onsite
Pace Project No.: 92478032

QC Batch: 542984
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478032022

METHOD BLANK: 2892634
Matrix: Water
Associated Lab Samples: 92478032022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	05/22/20 00:43	
1,2-Dichloroethane-d4 (S)	%	101	50-150	05/22/20 00:43	
Toluene-d8 (S)	%	107	50-150	05/22/20 00:43	

LABORATORY CONTROL SAMPLE: 2892635

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	17.1	86	70-130	
1,2-Dichloroethane-d4 (S)	%			96	50-150	
Toluene-d8 (S)	%			102	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2892636 2892637

Parameter	Units	92478230010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	16.7	15.9	81	77	50-150	5	30	
1,2-Dichloroethane-d4 (S)	%						132	132	50-150		30	
Toluene-d8 (S)	%						123	122	50-150		30	

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QUALIFIERS

Project: Kop-Flex onsite
Pace Project No.: 92478032

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H1	Analysis conducted outside the EPA method holding time.
IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
IK	The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kop-Flex onsite
Pace Project No.: 92478032

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92478032001	**MW-03**	EPA 8260D	542927		
92478032002	**MW-43**	EPA 8260D	542927		
92478032003	**MW-39**	EPA 8260D	542927		
92478032004	**MW-42**	EPA 8260D	542927		
92478032005	**MW-18**	EPA 8260D	542927		
92478032006	**MW-38R**	EPA 8260D	542927		
92478032007	**MW-40D**	EPA 8260D	542927		
92478032008	**MW-21D**	EPA 8260D	542927		
92478032009	**MW-5R**	EPA 8260D	542927		
92478032010	**MW-41D**	EPA 8260D	542927		
92478032011	**MW-1D**	EPA 8260D	542927		
92478032012	**MW-22D**	EPA 8260D	542927		
92478032013	**MW-04**	EPA 8260D	543382		
92478032014	**MW-20**	EPA 8260D	543215		
92478032015	**MW-09**	EPA 8260D	543215		
92478032016	**MW-23D**	EPA 8260D	543215		
92478032017	**MW-27D**	EPA 8260D	543215		
92478032018	**Trip Blank A**	EPA 8260D	543215		
92478032019	**Trip Blank B**	EPA 8260D	543215		
92478032020	**MW-44**	EPA 8260D	543215		
92478032021	**MW-16D**	EPA 8260D	543215		
92478032022	**Dup-051320**	EPA 8260D	543671		
92478032023	**MW-16**	EPA 8260D	543671		
92478032024	**MW-01**	EPA 8260D	543215		
92478032025	**Trip Blank C**	EPA 8260D	543215		
92478032001	**MW-03**	EPA 8260D Mod.	542729		
92478032002	**MW-43**	EPA 8260D Mod.	542729		
92478032003	**MW-39**	EPA 8260D Mod.	542729		
92478032004	**MW-42**	EPA 8260D Mod.	542729		
92478032005	**MW-18**	EPA 8260D Mod.	542730		
92478032006	**MW-38R**	EPA 8260D Mod.	542730		
92478032007	**MW-40D**	EPA 8260D Mod.	542730		
92478032008	**MW-21D**	EPA 8260D Mod.	542730		
92478032009	**MW-5R**	EPA 8260D Mod.	542730		
92478032010	**MW-41D**	EPA 8260D Mod.	542730		
92478032011	**MW-1D**	EPA 8260D Mod.	542730		
92478032012	**MW-22D**	EPA 8260D Mod.	542730		
92478032013	**MW-04**	EPA 8260D Mod.	542881		
92478032014	**MW-20**	EPA 8260D Mod.	542881		
92478032015	**MW-09**	EPA 8260D Mod.	542881		
92478032016	**MW-23D**	EPA 8260D Mod.	542881		
92478032017	**MW-27D**	EPA 8260D Mod.	542881		
92478032018	**Trip Blank A**	EPA 8260D Mod.	542881		
92478032019	**Trip Blank B**	EPA 8260D Mod.	542881		
92478032020	**MW-44**	EPA 8260D Mod.	542881		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kop-Flex onsite
Pace Project No.: 92478032

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92478032021	**MW-16D**	EPA 8260D Mod.	542881		
92478032022	**Dup-051320**	EPA 8260D Mod.	542984		
92478032023	**MW-16**	EPA 8260D Mod.	542881		
92478032024	**MW-01**	EPA 8260D Mod.	542881		
92478032025	**Trip Blank C**	EPA 8260D Mod.	542881		

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Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: WSP

Project #: WO# : 92478032
92478032

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: SR 5-18-20

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☑ IR Gun ID: 92T061 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.8, 6.9, 10.7 **Correction Factor:** Add/Subtract (°C) +0.1

Cooler Temp Corrected (°C): 5.9, 7.0, 10.8

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Ice melted

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#: 92478032

PM: PTE Due Date: 05/26/20

CLIENT: 92-WSP

pg 1

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																6												
2																6												
3																6												
4																6												
5																6												
6																5												
7																6												
8																6												
9																6												
10																6												
11																6												
12																6												

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical	Document Name: **Sample Condition Upon Receipt(SCUR)**	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: **F-CAR-CS-033-Rev.06**	Issuing Authority: Pace Carolinas Quality Office

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO#:92478032

PM: PTE Due Date: 05/26/20

CLIENT: 92-WSP

Pg 2

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	\				\	\	\	\			\		\	\	\	5									\	\			
2	\				\	\	\	\			\		\	\	\	6									\	\			
3	\				\	\	\	\			\		\	\	\	6									\	\			
4	\				\	\	\	\			\		\	\	\	5									\	\			
5	\				\	\	\	\			\		\	\	\	6									\	\			
6	\				\	\	\	\			\		\	\	\	4									\	\			
7	\				\	\	\	\			\		\	\	\	4									\	\			
8	\				\	\	\	\			\		\	\	\	6									\	\			
9	\				\	\	\	\			\		\	\	\	6									\	\			
10	\				\	\	\	\			\		\	\	\	5									\	\			
11	\				\	\	\	\			\		\	\	\	5									\	\			
12	\				\	\	\	\			\		\	\	\	6									\	\			
																4													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Onsite

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 13530 Dulles Technology Dr Ste 300 Herdon VA

Project Name: Kopflex - onsite

WSP USA Contact Name: Eric Johnson

Project Location: Hanover, MD

WSP USA Contact E-mail: Eric.Johnson @wsp.com

Project Number & Task: 31401545.01013

WSP USA Contact Phone: (703)-709-6500

Sampler(s) Name(s): Molly Long, Elliott Martynkiewicz

Sampler(s) Signature(s): [signature]

No. 010011

WSP

Laboratory Name & Location: Pace, Huntersville, NC

Laboratory Project Manager: Taylor Ezell

Requested Turn-Around-Time: ☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ____ HR

Requested Analyses & Preservatives

	Sample Identification	Matrix	~~Collection Start*~~ Date	~~Collection Start*~~ Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOCs 8260B	1,4-dioxane 8260B SIM								Sample Comments 92478032
B	MW-03	AQ			05/12/20	1145	6	X	X								001
A	MW-43	AQ			05/12/20	1205	6	X	X								002
A	MW-39	AQ			05/12/20	1225	6	X	X								003
B	MW-42	AQ			05/12/20	1235	6	X	X								004
A	MW-18	AQ			05/12/20	1250	6	X	X								005
A	MW-38R	AQ			05/12/20	1405	5	X	X								006
A	MW-40D	AQ			05/12/20	1420	6	X	X								007
B	MW-21D	AQ			05/12/20	1515	6	X	X								008
B	MW-5R	AQ			05/12/20	~~1555~~ 1625	6	X	X								009
A	MW-41D	AQ			05/12/20	1640	6	X	X								010
C	MW-1D	AQ			05/12/20	1705	6	X	X								011
B	MW-22D	AQ			05/12/20	1720	6	X	X								012
C	MW-04	AQ			5/13/20	1010	5	X	X								013
C	MW-20	AQ			5/13/20	1030	6	X	X								014
C	MW-09	AQ			5/13/20	1045	6	X	X								015

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	5/15/20	1600	Fedex			8127 8179 5236	8127 8179 5214 8127 8179 5225

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
			Skyler Pace	5-18-20	912	3	08331, 08330, 05571

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

onsite

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 13530 Dulles Technology Dr. #300 Herndon VA

No. 010013 WSP

Project Name: Kopflex

WSP USA Contact Name: Eric Johnson

Project Location: ~~SH~~ MD

WSP USA Contact E-mail: Eric.Johnson @wsp.com

Laboratory Name & Location: Pace, Huntersville, NC

Project Number & Task: 31401545.01013

WSP USA Contact Phone: 703 709 6500

Laboratory Project Manager: Taylor Ezell

Sampler(s) Name(s): Molly Long, Elliott Martynkiewicz

Sampler(s) Signature(s):

Requested Turn-Around-Time: [X] Standard [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] ____ HR

Requested Analyses & Preservatives

	Sample Identification	Matrix	Collection Start Date	Collection Start Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOCs 8260B	1,4-dioxane 8260B SIMS	Sample Comments
C	~~MW-24D~~ MW-23D	AQ	5/13/2020	11	00		5	X	X	016
C	MW-27D	AQ	5/13/2020	13	10		6	X	X	017
A	Trip Blank A		lab provided				4	X	X	018
B	Trip Blank B		lab provided				4	X	X	019
B	MW-44	AQ	5/13/2020	17	30		6	X	X	020
B	MW-16D	AQ	5/13/2020	17	50		6	X	X	021
A	DUP-051320	AQ	5/13/2020	09	00		5	X	X	022
B	MW-16	AQ	5/13/2020	18	00		5	X	X	023
B	MW-01	AQ	5/14/2020	10	18		6	X	X	024
C	Trip Blank C		lab provided				4	X	X	025

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
[signature]	5/15/20	1000	fed ex				

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)
			Skylar Pace	5/18/20	912		

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

May 27, 2020

Eric Johnson
WSP USA
13530 Dulles Technology Drive
Suite 300
Herndon, VA 20171

RE: Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Dear Eric Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on May 18, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Molly Long, WSP
Pam Robertson, WSP USA

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Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project:	Kop-Flex Recovery Wells onsite
Pace Project No.:	92478023

Pace Analytical Services Charlotte

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92478023001	**RW-1S**	Water	05/13/20 11:30	05/18/20 09:12
92478023002	**RW-2S**	Water	05/12/20 14:40	05/18/20 09:12
92478023003	**RW-3S**	Water	05/12/20 14:55	05/18/20 09:12
92478023004	**RW-1D**	Water	05/12/20 15:30	05/18/20 09:12
92478023005	**RW-2D**	Water	05/12/20 16:55	05/18/20 09:12

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(704)875-9092

SAMPLE ANALYTE COUNT

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92478023001	**RW-1S**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478023002	**RW-2S**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478023003	**RW-3S**	EPA 8260D	SAS	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478023004	**RW-1D**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C
92478023005	**RW-2D**	EPA 8260D	CL	63	PASI-C
		EPA 8260D Mod.	LMB	3	PASI-C

PASI-C = Pace Analytical Services - Charlotte

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-1S **Lab ID: 92478023001** Collected: 05/13/20 11:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	62.5	2.5		05/26/20 18:28	67-64-1	
Benzene	ND	ug/L	2.5	2.5		05/26/20 18:28	71-43-2	
Bromobenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	108-86-1	
Bromochloromethane	ND	ug/L	2.5	2.5		05/26/20 18:28	74-97-5	
Bromodichloromethane	ND	ug/L	2.5	2.5		05/26/20 18:28	75-27-4	
Bromoform	ND	ug/L	2.5	2.5		05/26/20 18:28	75-25-2	
Bromomethane	ND	ug/L	5.0	2.5		05/26/20 18:28	74-83-9	IH
2-Butanone (MEK)	ND	ug/L	12.5	2.5		05/26/20 18:28	78-93-3	
Carbon tetrachloride	ND	ug/L	2.5	2.5		05/26/20 18:28	56-23-5	
Chlorobenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	108-90-7	
Chloroethane	**16.3**	ug/L	2.5	2.5		05/26/20 18:28	75-00-3	
Chloroform	ND	ug/L	12.5	2.5		05/26/20 18:28	67-66-3	
Chloromethane	ND	ug/L	2.5	2.5		05/26/20 18:28	74-87-3	
2-Chlorotoluene	ND	ug/L	2.5	2.5		05/26/20 18:28	95-49-8	
4-Chlorotoluene	ND	ug/L	2.5	2.5		05/26/20 18:28	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	12.5	2.5		05/26/20 18:28	96-12-8	
Dibromochloromethane	ND	ug/L	2.5	2.5		05/26/20 18:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.5	2.5		05/26/20 18:28	106-93-4	
Dibromomethane	ND	ug/L	2.5	2.5		05/26/20 18:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.5	2.5		05/26/20 18:28	75-71-8	
1,1-Dichloroethane	**98.2**	ug/L	2.5	2.5		05/26/20 18:28	75-34-3	
1,2-Dichloroethane	**3.0**	ug/L	2.5	2.5		05/26/20 18:28	107-06-2	
1,1-Dichloroethene	**447**	ug/L	2.5	2.5		05/26/20 18:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.5	2.5		05/26/20 18:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.5	2.5		05/26/20 18:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.5	2.5		05/26/20 18:28	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.5	2.5		05/26/20 18:28	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.5	2.5		05/26/20 18:28	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.5	2.5		05/26/20 18:28	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.5	2.5		05/26/20 18:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.5	2.5		05/26/20 18:28	10061-02-6	
Diisopropyl ether	ND	ug/L	2.5	2.5		05/26/20 18:28	108-20-3	
Ethylbenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.5	2.5		05/26/20 18:28	87-68-3	IH
2-Hexanone	ND	ug/L	12.5	2.5		05/26/20 18:28	591-78-6	v1
p-Isopropyltoluene	ND	ug/L	2.5	2.5		05/26/20 18:28	99-87-6	
Methylene Chloride	ND	ug/L	12.5	2.5		05/26/20 18:28	75-09-2	v1
4-Methyl-2-pentanone (MIBK)	ND	ug/L	12.5	2.5		05/26/20 18:28	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.5	2.5		05/26/20 18:28	1634-04-4	
Naphthalene	ND	ug/L	2.5	2.5		05/26/20 18:28	91-20-3	
Styrene	ND	ug/L	2.5	2.5		05/26/20 18:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.5	2.5		05/26/20 18:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.5	2.5		05/26/20 18:28	79-34-5	

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9800 Kincey Ave. Suite 100
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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-1S **Lab ID: 92478023001** Collected: 05/13/20 11:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.5	2.5		05/26/20 18:28	127-18-4	
Toluene	ND	ug/L	2.5	2.5		05/26/20 18:28	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.5	2.5		05/26/20 18:28	120-82-1	
1,1,1-Trichloroethane	**95.7**	ug/L	2.5	2.5		05/26/20 18:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.5	2.5		05/26/20 18:28	79-00-5	
Trichloroethene	**3.2**	ug/L	2.5	2.5		05/26/20 18:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.5	2.5		05/26/20 18:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	2.5		05/26/20 18:28	96-18-4	
Vinyl acetate	ND	ug/L	5.0	2.5		05/26/20 18:28	108-05-4	v1
Vinyl chloride	**3.6**	ug/L	2.5	2.5		05/26/20 18:28	75-01-4	
Xylene (Total)	ND	ug/L	2.5	2.5		05/26/20 18:28	1330-20-7	
m&p-Xylene	ND	ug/L	5.0	2.5		05/26/20 18:28	179601-23-1	
o-Xylene	ND	ug/L	2.5	2.5		05/26/20 18:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	2.5		05/26/20 18:28	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130	2.5		05/26/20 18:28	17060-07-0	
Toluene-d8 (S)	102	%	70-130	2.5		05/26/20 18:28	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**298**	ug/L	10.0	5		05/19/20 03:47	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%	50-150	5		05/19/20 03:47	17060-07-0	
Toluene-d8 (S)	94	%	50-150	5		05/19/20 03:47	2037-26-5	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-2S **Lab ID: 92478023002** Collected: 05/12/20 14:40 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	50.0	2		05/26/20 17:31	67-64-1	
Benzene	ND	ug/L	2.0	2		05/26/20 17:31	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		05/26/20 17:31	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		05/26/20 17:31	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		05/26/20 17:31	75-27-4	
Bromoform	ND	ug/L	2.0	2		05/26/20 17:31	75-25-2	
Bromomethane	ND	ug/L	4.0	2		05/26/20 17:31	74-83-9	IH
2-Butanone (MEK)	ND	ug/L	10.0	2		05/26/20 17:31	78-93-3	
Carbon tetrachloride	ND	ug/L	2.0	2		05/26/20 17:31	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		05/26/20 17:31	108-90-7	
Chloroethane	ND	ug/L	2.0	2		05/26/20 17:31	75-00-3	
Chloroform	ND	ug/L	10.0	2		05/26/20 17:31	67-66-3	
Chloromethane	ND	ug/L	2.0	2		05/26/20 17:31	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		05/26/20 17:31	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		05/26/20 17:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	10.0	2		05/26/20 17:31	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		05/26/20 17:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		05/26/20 17:31	106-93-4	
Dibromomethane	ND	ug/L	2.0	2		05/26/20 17:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		05/26/20 17:31	75-71-8	
1,1-Dichloroethane	**24.9**	ug/L	2.0	2		05/26/20 17:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	2		05/26/20 17:31	107-06-2	
1,1-Dichloroethene	**140**	ug/L	2.0	2		05/26/20 17:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		05/26/20 17:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		05/26/20 17:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	2		05/26/20 17:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		05/26/20 17:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	2		05/26/20 17:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		05/26/20 17:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	2		05/26/20 17:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	2		05/26/20 17:31	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	2		05/26/20 17:31	108-20-3	
Ethylbenzene	ND	ug/L	2.0	2		05/26/20 17:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	2		05/26/20 17:31	87-68-3	IH
2-Hexanone	ND	ug/L	10.0	2		05/26/20 17:31	591-78-6	v1
p-Isopropyltoluene	ND	ug/L	2.0	2		05/26/20 17:31	99-87-6	
Methylene Chloride	ND	ug/L	10.0	2		05/26/20 17:31	75-09-2	v1
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		05/26/20 17:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		05/26/20 17:31	1634-04-4	
Naphthalene	ND	ug/L	2.0	2		05/26/20 17:31	91-20-3	
Styrene	ND	ug/L	2.0	2		05/26/20 17:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		05/26/20 17:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		05/26/20 17:31	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-2S **Lab ID: 92478023002** Collected: 05/12/20 14:40 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.0	2		05/26/20 17:31	127-18-4	
Toluene	ND	ug/L	2.0	2		05/26/20 17:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:31	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:31	120-82-1	
1,1,1-Trichloroethane	**232**	ug/L	2.0	2		05/26/20 17:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		05/26/20 17:31	79-00-5	
Trichloroethene	ND	ug/L	2.0	2		05/26/20 17:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		05/26/20 17:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	2		05/26/20 17:31	96-18-4	
Vinyl acetate	ND	ug/L	4.0	2		05/26/20 17:31	108-05-4	v1
Vinyl chloride	ND	ug/L	2.0	2		05/26/20 17:31	75-01-4	
Xylene (Total)	ND	ug/L	2.0	2		05/26/20 17:31	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	2		05/26/20 17:31	179601-23-1	
o-Xylene	ND	ug/L	2.0	2		05/26/20 17:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	2		05/26/20 17:31	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130	2		05/26/20 17:31	17060-07-0	
Toluene-d8 (S)	101	%	70-130	2		05/26/20 17:31	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**99.8**	ug/L	2.0	1		05/20/20 18:32	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%	50-150	1		05/20/20 18:32	17060-07-0	
Toluene-d8 (S)	95	%	50-150	1		05/20/20 18:32	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-3S **Lab ID: 92478023003** Collected: 05/12/20 14:55 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/24/20 04:31	67-64-1	
Benzene	ND	ug/L	1.0	1		05/24/20 04:31	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/24/20 04:31	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/24/20 04:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/24/20 04:31	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/24/20 04:31	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/24/20 04:31	74-83-9	v2
2-Butanone (MEK)	ND	ug/L	5.0	1		05/24/20 04:31	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/24/20 04:31	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/24/20 04:31	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/24/20 04:31	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/24/20 04:31	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/24/20 04:31	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 04:31	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/24/20 04:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/24/20 04:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/24/20 04:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/24/20 04:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/24/20 04:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 04:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 04:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/24/20 04:31	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/24/20 04:31	75-71-8	
1,1-Dichloroethane	**3.4**	ug/L	1.0	1		05/24/20 04:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/24/20 04:31	107-06-2	
1,1-Dichloroethene	**5.9**	ug/L	1.0	1		05/24/20 04:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 04:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/24/20 04:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 04:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/24/20 04:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/24/20 04:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/24/20 04:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 04:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/24/20 04:31	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/24/20 04:31	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/24/20 04:31	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/24/20 04:31	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		05/24/20 04:31	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/24/20 04:31	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/24/20 04:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/24/20 04:31	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/24/20 04:31	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/24/20 04:31	91-20-3	
Styrene	ND	ug/L	1.0	1		05/24/20 04:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 04:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/24/20 04:31	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-3S **Lab ID: 92478023003** Collected: 05/12/20 14:55 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/24/20 04:31	127-18-4	
Toluene	ND	ug/L	1.0	1		05/24/20 04:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 04:31	87-61-6	IH
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/24/20 04:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/24/20 04:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/24/20 04:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/24/20 04:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/24/20 04:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/24/20 04:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/24/20 04:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		05/24/20 04:31	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/24/20 04:31	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/24/20 04:31	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/24/20 04:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		05/24/20 04:31	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130	1		05/24/20 04:31	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		05/24/20 04:31	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**17.2**	ug/L	2.0	1		05/19/20 02:47	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%	50-150	1		05/19/20 02:47	17060-07-0	
Toluene-d8 (S)	100	%	50-150	1		05/19/20 02:47	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-1D **Lab ID: 92478023004** Collected: 05/12/20 15:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	50.0	2		05/26/20 17:50	67-64-1	
Benzene	ND	ug/L	2.0	2		05/26/20 17:50	71-43-2	
Bromobenzene	ND	ug/L	2.0	2		05/26/20 17:50	108-86-1	
Bromochloromethane	ND	ug/L	2.0	2		05/26/20 17:50	74-97-5	
Bromodichloromethane	ND	ug/L	2.0	2		05/26/20 17:50	75-27-4	
Bromoform	ND	ug/L	2.0	2		05/26/20 17:50	75-25-2	
Bromomethane	ND	ug/L	4.0	2		05/26/20 17:50	74-83-9	IH
2-Butanone (MEK)	ND	ug/L	10.0	2		05/26/20 17:50	78-93-3	
Carbon tetrachloride	ND	ug/L	2.0	2		05/26/20 17:50	56-23-5	
Chlorobenzene	ND	ug/L	2.0	2		05/26/20 17:50	108-90-7	
Chloroethane	**3.9**	ug/L	2.0	2		05/26/20 17:50	75-00-3	
Chloroform	ND	ug/L	10.0	2		05/26/20 17:50	67-66-3	
Chloromethane	ND	ug/L	2.0	2		05/26/20 17:50	74-87-3	
2-Chlorotoluene	ND	ug/L	2.0	2		05/26/20 17:50	95-49-8	
4-Chlorotoluene	ND	ug/L	2.0	2		05/26/20 17:50	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	10.0	2		05/26/20 17:50	96-12-8	
Dibromochloromethane	ND	ug/L	2.0	2		05/26/20 17:50	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	2.0	2		05/26/20 17:50	106-93-4	
Dibromomethane	ND	ug/L	2.0	2		05/26/20 17:50	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:50	106-46-7	
Dichlorodifluoromethane	ND	ug/L	2.0	2		05/26/20 17:50	75-71-8	
1,1-Dichloroethane	**48.4**	ug/L	2.0	2		05/26/20 17:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	2.0	2		05/26/20 17:50	107-06-2	
1,1-Dichloroethene	**202**	ug/L	2.0	2		05/26/20 17:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	2.0	2		05/26/20 17:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	2.0	2		05/26/20 17:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	2.0	2		05/26/20 17:50	78-87-5	
1,3-Dichloropropane	ND	ug/L	2.0	2		05/26/20 17:50	142-28-9	
2,2-Dichloropropane	ND	ug/L	2.0	2		05/26/20 17:50	594-20-7	
1,1-Dichloropropene	ND	ug/L	2.0	2		05/26/20 17:50	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	2.0	2		05/26/20 17:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	2.0	2		05/26/20 17:50	10061-02-6	
Diisopropyl ether	ND	ug/L	2.0	2		05/26/20 17:50	108-20-3	
Ethylbenzene	ND	ug/L	2.0	2		05/26/20 17:50	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	2.0	2		05/26/20 17:50	87-68-3	IH
2-Hexanone	ND	ug/L	10.0	2		05/26/20 17:50	591-78-6	v1
p-Isopropyltoluene	ND	ug/L	2.0	2		05/26/20 17:50	99-87-6	
Methylene Chloride	ND	ug/L	10.0	2		05/26/20 17:50	75-09-2	v1
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	2		05/26/20 17:50	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	2.0	2		05/26/20 17:50	1634-04-4	
Naphthalene	ND	ug/L	2.0	2		05/26/20 17:50	91-20-3	
Styrene	ND	ug/L	2.0	2		05/26/20 17:50	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	2.0	2		05/26/20 17:50	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	2.0	2		05/26/20 17:50	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-1D **Lab ID: 92478023004** Collected: 05/12/20 15:30 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	2.0	2		05/26/20 17:50	127-18-4	
Toluene	ND	ug/L	2.0	2		05/26/20 17:50	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:50	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	2.0	2		05/26/20 17:50	120-82-1	
1,1,1-Trichloroethane	**5.1**	ug/L	2.0	2		05/26/20 17:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	2.0	2		05/26/20 17:50	79-00-5	
Trichloroethene	ND	ug/L	2.0	2		05/26/20 17:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	2.0	2		05/26/20 17:50	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.0	2		05/26/20 17:50	96-18-4	
Vinyl acetate	ND	ug/L	4.0	2		05/26/20 17:50	108-05-4	v1
Vinyl chloride	ND	ug/L	2.0	2		05/26/20 17:50	75-01-4	
Xylene (Total)	ND	ug/L	2.0	2		05/26/20 17:50	1330-20-7	
m&p-Xylene	ND	ug/L	4.0	2		05/26/20 17:50	179601-23-1	
o-Xylene	ND	ug/L	2.0	2		05/26/20 17:50	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	2		05/26/20 17:50	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130	2		05/26/20 17:50	17060-07-0	
Toluene-d8 (S)	102	%	70-130	2		05/26/20 17:50	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**81.8**	ug/L	2.0	1		05/19/20 03:07	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	50-150	1		05/19/20 03:07	17060-07-0	
Toluene-d8 (S)	107	%	50-150	1		05/19/20 03:07	2037-26-5	

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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-2D **Lab ID: 92478023005** Collected: 05/12/20 16:55 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D Pace Analytical Services - Charlotte							
Acetone	ND	ug/L	25.0	1		05/26/20 16:54	67-64-1	
Benzene	ND	ug/L	1.0	1		05/26/20 16:54	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/26/20 16:54	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/26/20 16:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/26/20 16:54	75-27-4	
Bromoform	ND	ug/L	1.0	1		05/26/20 16:54	75-25-2	
Bromomethane	ND	ug/L	2.0	1		05/26/20 16:54	74-83-9	IH
2-Butanone (MEK)	ND	ug/L	5.0	1		05/26/20 16:54	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		05/26/20 16:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/26/20 16:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/26/20 16:54	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/26/20 16:54	67-66-3	
Chloromethane	ND	ug/L	1.0	1		05/26/20 16:54	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 16:54	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/26/20 16:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		05/26/20 16:54	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/26/20 16:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/26/20 16:54	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		05/26/20 16:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 16:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 16:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/26/20 16:54	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/26/20 16:54	75-71-8	
1,1-Dichloroethane	**21.4**	ug/L	1.0	1		05/26/20 16:54	75-34-3	
1,2-Dichloroethane	**1.6**	ug/L	1.0	1		05/26/20 16:54	107-06-2	
1,1-Dichloroethene	**145**	ug/L	1.0	1		05/26/20 16:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 16:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/26/20 16:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 16:54	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/26/20 16:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		05/26/20 16:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/26/20 16:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 16:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		05/26/20 16:54	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		05/26/20 16:54	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		05/26/20 16:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/26/20 16:54	87-68-3	IH
2-Hexanone	ND	ug/L	5.0	1		05/26/20 16:54	591-78-6	v1
p-Isopropyltoluene	ND	ug/L	1.0	1		05/26/20 16:54	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		05/26/20 16:54	75-09-2	v1
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/26/20 16:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/26/20 16:54	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		05/26/20 16:54	91-20-3	
Styrene	ND	ug/L	1.0	1		05/26/20 16:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 16:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/26/20 16:54	79-34-5	

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ANALYTICAL RESULTS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Sample: RW-2D **Lab ID: 92478023005** Collected: 05/12/20 16:55 Received: 05/18/20 09:12 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D MSV Low Level	Analytical Method: EPA 8260D							
	Pace Analytical Services - Charlotte							
Tetrachloroethene	ND	ug/L	1.0	1		05/26/20 16:54	127-18-4	
Toluene	ND	ug/L	1.0	1		05/26/20 16:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 16:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/26/20 16:54	120-82-1	
1,1,1-Trichloroethane	**5.3**	ug/L	1.0	1		05/26/20 16:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/26/20 16:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		05/26/20 16:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/26/20 16:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		05/26/20 16:54	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		05/26/20 16:54	108-05-4	v1
Vinyl chloride	ND	ug/L	1.0	1		05/26/20 16:54	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		05/26/20 16:54	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		05/26/20 16:54	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		05/26/20 16:54	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		05/26/20 16:54	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	70-130	1		05/26/20 16:54	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		05/26/20 16:54	2037-26-5	
8260D MSV SIM	Analytical Method: EPA 8260D Mod.							
	Pace Analytical Services - Charlotte							
1,4-Dioxane (p-Dioxane)	**78.2**	ug/L	2.0	1		05/19/20 03:27	123-91-1	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	50-150	1		05/19/20 03:27	17060-07-0	
Toluene-d8 (S)	94	%	50-150	1		05/19/20 03:27	2037-26-5	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

QC Batch: 542927
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478023003

METHOD BLANK: 2892230
Matrix: Water
Associated Lab Samples: 92478023003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1-Dichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,1-Dichloroethene	ug/L	ND	1.0	05/24/20 00:00	
1,1-Dichloropropene	ug/L	ND	1.0	05/24/20 00:00	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	IH
1,2,3-Trichloropropane	ug/L	ND	1.0	05/24/20 00:00	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	05/24/20 00:00	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichloroethane	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichloropropane	ug/L	ND	1.0	05/24/20 00:00	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
1,3-Dichloropropane	ug/L	ND	1.0	05/24/20 00:00	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
2,2-Dichloropropane	ug/L	ND	1.0	05/24/20 00:00	
2-Butanone (MEK)	ug/L	ND	5.0	05/24/20 00:00	
2-Chlorotoluene	ug/L	ND	1.0	05/24/20 00:00	
2-Hexanone	ug/L	ND	5.0	05/24/20 00:00	
4-Chlorotoluene	ug/L	ND	1.0	05/24/20 00:00	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/24/20 00:00	
Acetone	ug/L	ND	25.0	05/24/20 00:00	
Benzene	ug/L	ND	1.0	05/24/20 00:00	
Bromobenzene	ug/L	ND	1.0	05/24/20 00:00	
Bromochloromethane	ug/L	ND	1.0	05/24/20 00:00	
Bromodichloromethane	ug/L	ND	1.0	05/24/20 00:00	
Bromoform	ug/L	ND	1.0	05/24/20 00:00	
Bromomethane	ug/L	ND	2.0	05/24/20 00:00	v2
Carbon tetrachloride	ug/L	ND	1.0	05/24/20 00:00	
Chlorobenzene	ug/L	ND	1.0	05/24/20 00:00	
Chloroethane	ug/L	ND	1.0	05/24/20 00:00	
Chloroform	ug/L	ND	5.0	05/24/20 00:00	
Chloromethane	ug/L	ND	1.0	05/24/20 00:00	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/24/20 00:00	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/24/20 00:00	
Dibromochloromethane	ug/L	ND	1.0	05/24/20 00:00	
Dibromomethane	ug/L	ND	1.0	05/24/20 00:00	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

METHOD BLANK: 2892230 Matrix: Water
Associated Lab Samples: 92478023003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	05/24/20 00:00	
Diisopropyl ether	ug/L	ND	1.0	05/24/20 00:00	
Ethylbenzene	ug/L	ND	1.0	05/24/20 00:00	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/24/20 00:00	
m&p-Xylene	ug/L	ND	2.0	05/24/20 00:00	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/24/20 00:00	
Methylene Chloride	ug/L	ND	5.0	05/24/20 00:00	
Naphthalene	ug/L	ND	1.0	05/24/20 00:00	
o-Xylene	ug/L	ND	1.0	05/24/20 00:00	
p-Isopropyltoluene	ug/L	ND	1.0	05/24/20 00:00	
Styrene	ug/L	ND	1.0	05/24/20 00:00	
Tetrachloroethene	ug/L	ND	1.0	05/24/20 00:00	
Toluene	ug/L	ND	1.0	05/24/20 00:00	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/24/20 00:00	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/24/20 00:00	
Trichloroethene	ug/L	ND	1.0	05/24/20 00:00	
Trichlorofluoromethane	ug/L	ND	1.0	05/24/20 00:00	
Vinyl acetate	ug/L	ND	2.0	05/24/20 00:00	
Vinyl chloride	ug/L	ND	1.0	05/24/20 00:00	
Xylene (Total)	ug/L	ND	1.0	05/24/20 00:00	
1,2-Dichloroethane-d4 (S)	%	108	70-130	05/24/20 00:00	
4-Bromofluorobenzene (S)	%	99	70-130	05/24/20 00:00	
Toluene-d8 (S)	%	102	70-130	05/24/20 00:00	

LABORATORY CONTROL SAMPLE: 2892231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.5	101	70-130	
1,1,1-Trichloroethane	ug/L	50	54.7	109	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.4	103	70-130	
1,1,2-Trichloroethane	ug/L	50	50.9	102	70-130	
1,1-Dichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethene	ug/L	50	55.0	110	70-130	
1,1-Dichloropropene	ug/L	50	52.5	105	70-130	
1,2,3-Trichlorobenzene	ug/L	50	60.5	121	70-130	IH
1,2,3-Trichloropropane	ug/L	50	47.6	95	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.4	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	52.0	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	52.6	105	70-130	
1,2-Dichlorobenzene	ug/L	50	51.0	102	70-130	
1,2-Dichloroethane	ug/L	50	52.4	105	70-130	
1,2-Dichloropropane	ug/L	50	50.5	101	70-130	
1,3-Dichlorobenzene	ug/L	50	50.2	100	70-130	
1,3-Dichloropropane	ug/L	50	50.7	101	70-131	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

LABORATORY CONTROL SAMPLE: 2892231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	49.3	99	70-130	
2,2-Dichloropropane	ug/L	50	44.2	88	69-130	
2-Butanone (MEK)	ug/L	100	106	106	64-135	
2-Chlorotoluene	ug/L	50	46.8	94	70-130	
2-Hexanone	ug/L	100	109	109	66-135	
4-Chlorotoluene	ug/L	50	48.7	97	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	109	109	70-130	
Acetone	ug/L	100	106	106	61-157	
Benzene	ug/L	50	51.4	103	70-130	
Bromobenzene	ug/L	50	46.8	94	70-130	
Bromochloromethane	ug/L	50	50.4	101	70-130	
Bromodichloromethane	ug/L	50	53.9	108	70-130	
Bromoform	ug/L	50	43.8	88	70-130	
Bromomethane	ug/L	50	33.3	67	38-130	v3
Carbon tetrachloride	ug/L	50	58.2	116	70-130	
Chlorobenzene	ug/L	50	50.6	101	70-130	
Chloroethane	ug/L	50	43.6	87	37-142	
Chloroform	ug/L	50	52.8	106	70-130	
Chloromethane	ug/L	50	34.8	70	48-130	
cis-1,2-Dichloroethene	ug/L	50	49.8	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.6	99	70-130	
Dibromochloromethane	ug/L	50	48.7	97	70-130	
Dibromomethane	ug/L	50	52.3	105	70-130	
Dichlorodifluoromethane	ug/L	50	46.5	93	53-134	
Diisopropyl ether	ug/L	50	53.9	108	70-135	
Ethylbenzene	ug/L	50	48.1	96	70-130	
Hexachloro-1,3-butadiene	ug/L	50	50.8	102	68-132	
m&p-Xylene	ug/L	100	95.3	95	70-130	
Methyl-tert-butyl ether	ug/L	50	52.7	105	70-130	
Methylene Chloride	ug/L	50	52.9	106	67-132	
Naphthalene	ug/L	50	59.5	119	70-130	
o-Xylene	ug/L	50	49.0	98	70-131	
p-Isopropyltoluene	ug/L	50	48.1	96	70-130	
Styrene	ug/L	50	52.3	105	70-130	
Tetrachloroethene	ug/L	50	52.0	104	69-130	
Toluene	ug/L	50	48.4	97	70-130	
trans-1,2-Dichloroethene	ug/L	50	54.4	109	70-130	
trans-1,3-Dichloropropene	ug/L	50	51.1	102	70-130	
Trichloroethene	ug/L	50	50.5	101	70-130	
Trichlorofluoromethane	ug/L	50	45.7	91	63-130	
Vinyl acetate	ug/L	100	96.7	97	55-143	
Vinyl chloride	ug/L	50	52.3	105	70-131	
Xylene (Total)	ug/L	150	144	96	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			103	70-130	
Toluene-d8 (S)	%			100	70-130	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

MATRIX SPIKE SAMPLE: 2892233

Parameter	Units	92478024015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.5	107	73-134	
1,1,1-Trichloroethane	ug/L	ND	20	34.9	175	82-143	M1
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.3	102	70-136	
1,1,2-Trichloroethane	ug/L	ND	20	21.9	109	70-135	
1,1-Dichloroethane	ug/L	12.8	20	36.2	117	70-139	
1,1-Dichloroethene	ug/L	58.0	20	87.1	146	70-154	
1,1-Dichloropropene	ug/L	ND	20	24.0	120	70-149	
1,2,3-Trichlorobenzene	ug/L	ND	20	22.7	113	70-135	IH
1,2,3-Trichloropropane	ug/L	ND	20	18.5	93	71-137	
1,2,4-Trichlorobenzene	ug/L	ND	20	22.2	111	73-140	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	21.0	105	65-134	
1,2-Dibromoethane (EDB)	ug/L	ND	20	21.8	109	70-137	
1,2-Dichlorobenzene	ug/L	ND	20	20.7	104	70-133	
1,2-Dichloroethane	ug/L	ND	20	22.4	108	70-137	
1,2-Dichloropropane	ug/L	ND	20	21.6	108	70-140	
1,3-Dichlorobenzene	ug/L	ND	20	21.0	105	70-135	
1,3-Dichloropropane	ug/L	ND	20	21.3	107	70-143	
1,4-Dichlorobenzene	ug/L	ND	20	20.1	100	70-133	
2,2-Dichloropropane	ug/L	ND	20	24.6	123	61-148	
2-Butanone (MEK)	ug/L	ND	40	48.6	121	60-139	
2-Chlorotoluene	ug/L	ND	20	19.4	97	70-144	
2-Hexanone	ug/L	ND	40	44.2	111	65-138	
4-Chlorotoluene	ug/L	ND	20	21.1	105	70-137	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	44.7	112	65-135	
Acetone	ug/L	ND	40	45.4	114	60-148	
Benzene	ug/L	ND	20	21.7	109	70-151	
Bromobenzene	ug/L	ND	20	20.1	100	70-136	
Bromochloromethane	ug/L	ND	20	22.7	113	70-141	
Bromodichloromethane	ug/L	ND	20	23.6	118	70-138	
Bromoform	ug/L	ND	20	19.4	97	63-130	
Bromomethane	ug/L	ND	20	19.4	97	15-152	
Carbon tetrachloride	ug/L	ND	20	25.4	127	70-143	
Chlorobenzene	ug/L	ND	20	20.4	102	70-138	
Chloroethane	ug/L	ND	20	22.3	111	52-163	
Chloroform	ug/L	ND	20	24.2	121	70-139	
Chloromethane	ug/L	ND	20	19.8	99	41-139	
cis-1,2-Dichloroethene	ug/L	ND	20	22.1	111	70-141	
cis-1,3-Dichloropropene	ug/L	ND	20	22.3	112	70-137	
Dibromochloromethane	ug/L	ND	20	19.8	99	70-134	
Dibromomethane	ug/L	ND	20	21.9	109	70-138	
Dichlorodifluoromethane	ug/L	ND	20	24.7	124	47-155	
Diisopropyl ether	ug/L	ND	20	24.8	124	63-144	
Ethylbenzene	ug/L	ND	20	20.1	101	66-153	
Hexachloro-1,3-butadiene	ug/L	ND	20	20.6	103	65-149	
m&p-Xylene	ug/L	ND	40	40.0	100	69-152	
Methyl-tert-butyl ether	ug/L	1.1	20	24.5	117	54-156	
Methylene Chloride	ug/L	ND	20	23.9	120	42-159	

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(704)875-9092

QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

MATRIX SPIKE SAMPLE: 2892233

Parameter	Units	92478024015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	ND	20	22.2	111	61-148	
o-Xylene	ug/L	ND	20	19.8	99	70-148	
p-Isopropyltoluene	ug/L	ND	20	20.9	104	70-146	
Styrene	ug/L	ND	20	20.8	104	70-135	
Tetrachloroethene	ug/L	ND	20	22.2	111	59-143	
Toluene	ug/L	ND	20	21.0	105	59-148	
trans-1,2-Dichloroethene	ug/L	ND	20	23.2	116	70-146	
trans-1,3-Dichloropropene	ug/L	ND	20	22.3	112	70-135	
Trichloroethene	ug/L	ND	20	22.5	113	70-147	
Trichlorofluoromethane	ug/L	ND	20	25.0	125	70-148	
Vinyl acetate	ug/L	ND	40	44.8	112	49-151	
Vinyl chloride	ug/L	ND	20	25.2	126	70-156	
Xylene (Total)	ug/L	ND	60	59.8	100	63-158	
1,2-Dichloroethane-d4 (S)	%				111	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 2892232

Parameter	Units	92478032010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	IH
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

SAMPLE DUPLICATE: 2892232

Parameter	Units	92478032010 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	v2
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	118	115			
4-Bromofluorobenzene (S)	%	99	95			
Toluene-d8 (S)	%	100	101			

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

QC Batch: 543382
QC Batch Method: EPA 8260D
Analysis Method: EPA 8260D
Analysis Description: 8260D MSV Low Level
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478023001, 92478023002, 92478023004, 92478023005

METHOD BLANK: 2894165
Matrix: Water
Associated Lab Samples: 92478023001, 92478023002, 92478023004, 92478023005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1-Dichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,1-Dichloroethene	ug/L	ND	1.0	05/26/20 12:50	
1,1-Dichloropropene	ug/L	ND	1.0	05/26/20 12:50	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,2,3-Trichloropropane	ug/L	ND	1.0	05/26/20 12:50	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	05/26/20 12:50	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichloroethane	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichloropropane	ug/L	ND	1.0	05/26/20 12:50	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
1,3-Dichloropropane	ug/L	ND	1.0	05/26/20 12:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
2,2-Dichloropropane	ug/L	ND	1.0	05/26/20 12:50	
2-Butanone (MEK)	ug/L	ND	5.0	05/26/20 12:50	
2-Chlorotoluene	ug/L	ND	1.0	05/26/20 12:50	
2-Hexanone	ug/L	ND	5.0	05/26/20 12:50	v1
4-Chlorotoluene	ug/L	ND	1.0	05/26/20 12:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/26/20 12:50	
Acetone	ug/L	ND	25.0	05/26/20 12:50	
Benzene	ug/L	ND	1.0	05/26/20 12:50	
Bromobenzene	ug/L	ND	1.0	05/26/20 12:50	
Bromochloromethane	ug/L	ND	1.0	05/26/20 12:50	
Bromodichloromethane	ug/L	ND	1.0	05/26/20 12:50	
Bromoform	ug/L	ND	1.0	05/26/20 12:50	
Bromomethane	ug/L	ND	2.0	05/26/20 12:50	IH
Carbon tetrachloride	ug/L	ND	1.0	05/26/20 12:50	
Chlorobenzene	ug/L	ND	1.0	05/26/20 12:50	
Chloroethane	ug/L	ND	1.0	05/26/20 12:50	
Chloroform	ug/L	ND	5.0	05/26/20 12:50	
Chloromethane	ug/L	ND	1.0	05/26/20 12:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/26/20 12:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	05/26/20 12:50	
Dibromochloromethane	ug/L	ND	1.0	05/26/20 12:50	
Dibromomethane	ug/L	ND	1.0	05/26/20 12:50	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

METHOD BLANK: 2894165 Matrix: Water
Associated Lab Samples: 92478023001, 92478023002, 92478023004, 92478023005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	05/26/20 12:50	
Diisopropyl ether	ug/L	ND	1.0	05/26/20 12:50	
Ethylbenzene	ug/L	ND	1.0	05/26/20 12:50	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/26/20 12:50	IH
m&p-Xylene	ug/L	ND	2.0	05/26/20 12:50	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/26/20 12:50	
Methylene Chloride	ug/L	ND	5.0	05/26/20 12:50	v1
Naphthalene	ug/L	ND	1.0	05/26/20 12:50	
o-Xylene	ug/L	ND	1.0	05/26/20 12:50	
p-Isopropyltoluene	ug/L	ND	1.0	05/26/20 12:50	
Styrene	ug/L	ND	1.0	05/26/20 12:50	
Tetrachloroethene	ug/L	ND	1.0	05/26/20 12:50	
Toluene	ug/L	ND	1.0	05/26/20 12:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/26/20 12:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	05/26/20 12:50	
Trichloroethene	ug/L	ND	1.0	05/26/20 12:50	
Trichlorofluoromethane	ug/L	ND	1.0	05/26/20 12:50	
Vinyl acetate	ug/L	ND	2.0	05/26/20 12:50	v1
Vinyl chloride	ug/L	ND	1.0	05/26/20 12:50	
Xylene (Total)	ug/L	ND	1.0	05/26/20 12:50	
1,2-Dichloroethane-d4 (S)	%	115	70-130	05/26/20 12:50	
4-Bromofluorobenzene (S)	%	100	70-130	05/26/20 12:50	
Toluene-d8 (S)	%	98	70-130	05/26/20 12:50	

LABORATORY CONTROL SAMPLE: 2894166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.2	108	70-130	
1,1,1-Trichloroethane	ug/L	50	49.3	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	53.0	106	70-130	
1,1,2-Trichloroethane	ug/L	50	47.6	95	70-130	
1,1-Dichloroethane	ug/L	50	51.9	104	70-130	
1,1-Dichloroethene	ug/L	50	56.0	112	70-130	
1,1-Dichloropropene	ug/L	50	50.5	101	70-130	
1,2,3-Trichlorobenzene	ug/L	50	50.1	100	70-130	
1,2,3-Trichloropropane	ug/L	50	51.5	103	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.4	105	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.4	89	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	54.1	108	70-130	
1,2-Dichlorobenzene	ug/L	50	55.5	111	70-130	
1,2-Dichloroethane	ug/L	50	52.3	105	70-130	
1,2-Dichloropropane	ug/L	50	53.1	106	70-130	
1,3-Dichlorobenzene	ug/L	50	55.7	111	70-130	
1,3-Dichloropropane	ug/L	50	56.2	112	70-131	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

LABORATORY CONTROL SAMPLE: 2894166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	53.8	108	70-130	
2,2-Dichloropropane	ug/L	50	48.4	97	69-130	
2-Butanone (MEK)	ug/L	100	112	112	64-135	
2-Chlorotoluene	ug/L	50	54.3	109	70-130	
2-Hexanone	ug/L	100	123	123	66-135	v1
4-Chlorotoluene	ug/L	50	54.8	110	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	113	113	70-130	
Acetone	ug/L	100	115	115	61-157	
Benzene	ug/L	50	52.4	105	70-130	
Bromobenzene	ug/L	50	54.5	109	70-130	
Bromochloromethane	ug/L	50	45.8	92	70-130	
Bromodichloromethane	ug/L	50	49.0	98	70-130	
Bromoform	ug/L	50	50.8	102	70-130	
Bromomethane	ug/L	50	41.8	84	38-130	IH
Carbon tetrachloride	ug/L	50	52.6	105	70-130	
Chlorobenzene	ug/L	50	53.6	107	70-130	
Chloroethane	ug/L	50	42.2	84	37-142	
Chloroform	ug/L	50	49.5	99	70-130	
Chloromethane	ug/L	50	49.8	100	48-130	
cis-1,2-Dichloroethene	ug/L	50	51.2	102	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.5	99	70-130	
Dibromochloromethane	ug/L	50	55.7	111	70-130	
Dibromomethane	ug/L	50	50.5	101	70-130	
Dichlorodifluoromethane	ug/L	50	44.2	88	53-134	
Diisopropyl ether	ug/L	50	58.7	117	70-135	
Ethylbenzene	ug/L	50	54.9	110	70-130	
Hexachloro-1,3-butadiene	ug/L	50	49.7	99	68-132	IH
m&p-Xylene	ug/L	100	109	109	70-130	
Methyl-tert-butyl ether	ug/L	50	52.4	105	70-130	
Methylene Chloride	ug/L	50	60.8	122	67-132	v1
Naphthalene	ug/L	50	49.2	98	70-130	
o-Xylene	ug/L	50	54.1	108	70-131	
p-Isopropyltoluene	ug/L	50	56.8	114	70-130	
Styrene	ug/L	50	56.9	114	70-130	
Tetrachloroethene	ug/L	50	53.7	107	69-130	
Toluene	ug/L	50	46.8	94	70-130	
trans-1,2-Dichloroethene	ug/L	50	54.4	109	70-130	
trans-1,3-Dichloropropene	ug/L	50	49.1	98	70-130	
Trichloroethene	ug/L	50	50.5	101	70-130	
Trichlorofluoromethane	ug/L	50	43.4	87	63-130	
Vinyl acetate	ug/L	100	132	132	55-143	v1
Vinyl chloride	ug/L	50	50.9	102	70-131	
Xylene (Total)	ug/L	150	163	109	70-130	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2894167 2894168

Parameter	Units	92478005001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	120	139	120	139	73-134	15	30	H1,M1
1,1,1-Trichloroethane	ug/L	ND	100	100	122	140	122	140	82-143	14	30	H1
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	121	140	121	140	70-136	15	30	H1,M1
1,1,2-Trichloroethane	ug/L	ND	100	100	119	133	119	133	70-135	11	30	H1
1,1-Dichloroethane	ug/L	ND	100	100	139	149	139	149	70-139	6	30	H1,M1
1,1-Dichloroethene	ug/L	ND	100	100	147	164	147	164	70-154	11	30	H1,M1
1,1-Dichloropropene	ug/L	ND	100	100	131	147	131	147	70-149	11	30	H1
1,2,3-Trichlorobenzene	ug/L	ND	100	100	116	130	116	130	70-135	11	30	H1
1,2,3-Trichloropropane	ug/L	ND	100	100	123	144	123	144	71-137	16	30	H1,M1
1,2,4-Trichlorobenzene	ug/L	ND	100	100	123	123	123	123	73-140	0	30	H1
1,2-Dibromo-3-chloropropane	ug/L	ND	100	100	109	113	109	113	65-134	3	30	H1
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	125	146	125	146	70-137	15	30	H1,M1
1,2-Dichlorobenzene	ug/L	ND	100	100	139	140	139	140	70-133	1	30	H1,M1
1,2-Dichloroethane	ug/L	ND	100	100	137	148	137	148	70-137	8	30	H1,M1
1,2-Dichloropropane	ug/L	ND	100	100	131	152	131	152	70-140	15	30	H1,M1
1,3-Dichlorobenzene	ug/L	ND	100	100	133	134	133	134	70-135	1	30	H1
1,3-Dichloropropane	ug/L	ND	100	100	134	156	134	156	70-143	15	30	H1,M1
1,4-Dichlorobenzene	ug/L	ND	100	100	130	134	130	134	70-133	3	30	H1,M1
2,2-Dichloropropane	ug/L	ND	100	100	128	138	128	138	61-148	7	30	H1
2-Butanone (MEK)	ug/L	ND	200	200	274	298	137	149	60-139	8	30	H1,M1
2-Chlorotoluene	ug/L	ND	100	100	145	143	145	143	70-144	1	30	H1,M1
2-Hexanone	ug/L	ND	200	200	279	324	139	162	65-138	15	30	H1,M1, v1
4-Chlorotoluene	ug/L	ND	100	100	134	136	134	136	70-137	1	30	H1
4-Methyl-2-pentanone (MIBK)	ug/L	ND	200	200	285	322	139	157	65-135	12	30	H1,M1
Acetone	ug/L	ND	200	200	276	304	138	152	60-148	10	30	H1,M1
Benzene	ug/L	346	100	100	471	502	126	157	70-151	6	30	H1,M1
Bromobenzene	ug/L	ND	100	100	138	138	138	138	70-136	0	30	H1,M1
Bromochloromethane	ug/L	ND	100	100	122	135	122	135	70-141	10	30	H1
Bromodichloromethane	ug/L	ND	100	100	118	133	118	133	70-138	12	30	H1
Bromoform	ug/L	ND	100	100	106	117	106	117	63-130	9	30	H1
Bromomethane	ug/L	ND	100	100	136	163	136	163	15-152	18	30	H1,IH, M1
Carbon tetrachloride	ug/L	ND	100	100	127	142	127	142	70-143	12	30	H1
Chlorobenzene	ug/L	ND	100	100	134	148	134	148	70-138	10	30	H1,M1
Chloroethane	ug/L	ND	100	100	129	136	129	136	52-163	5	30	H1
Chloroform	ug/L	ND	100	100	127	140	127	140	70-139	10	30	H1,M1
Chloromethane	ug/L	ND	100	100	132	144	130	143	41-139	9	30	H1,M1
cis-1,2-Dichloroethene	ug/L	ND	100	100	134	149	134	149	70-141	10	30	H1,M1
cis-1,3-Dichloropropene	ug/L	ND	100	100	126	135	126	135	70-137	7	30	H1
Dibromochloromethane	ug/L	ND	100	100	122	131	122	131	70-134	7	30	H1
Dibromomethane	ug/L	ND	100	100	126	141	126	141	70-138	12	30	H1,M1
Dichlorodifluoromethane	ug/L	ND	100	100	121	131	121	131	47-155	7	30	H1
Diisopropyl ether	ug/L	8.9	100	100	158	174	149	165	63-144	10	30	H1,M1
Ethylbenzene	ug/L	205	100	100	327	347	122	141	66-153	6	30	H1

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2894167 2894168

Parameter	Units	92478005001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Hexachloro-1,3-butadiene	ug/L	ND	100	100	132	135	132	135	65-149	2	30	H1,IH
m&p-Xylene	ug/L	719	200	200	969	998	125	140	69-152	3	30	H1
Methyl-tert-butyl ether	ug/L	27.4	100	100	157	168	129	141	54-156	7	30	H1
Methylene Chloride	ug/L	ND	100	100	155	170	155	170	42-159	9	30	H1,M1, v1
Naphthalene	ug/L	110	100	100	230	229	120	120	61-148	0	30	H1
o-Xylene	ug/L	378	100	100	512	521	135	143	70-148	2	30	H1
p-Isopropyltoluene	ug/L	ND	100	100	155	158	155	158	70-146	1	30	H1,M1
Styrene	ug/L	ND	100	100	135	144	132	141	70-135	7	30	H1,M1
Tetrachloroethene	ug/L	ND	100	100	128	147	128	147	59-143	14	30	H1,M1
Toluene	ug/L	644	100	100	747	776	103	133	59-148	4	30	H1
trans-1,2-Dichloroethene	ug/L	ND	100	100	141	154	141	154	70-146	9	30	H1,M1
trans-1,3-Dichloropropene	ug/L	ND	100	100	121	133	121	133	70-135	9	30	H1
Trichloroethene	ug/L	ND	100	100	131	139	131	139	70-147	6	30	H1
Trichlorofluoromethane	ug/L	ND	100	100	114	129	114	129	70-148	13	30	H1
Vinyl acetate	ug/L	ND	200	200	322	367	161	184	49-151	13	30	H1,M1, v1
Vinyl chloride	ug/L	ND	100	100	136	147	136	147	70-156	8	30	H1
Xylene (Total)	ug/L	1100	300	300	1480	1520	128	141	63-158	3	30	
1,2-Dichloroethane-d4 (S)	%						111	113	70-130			
4-Bromofluorobenzene (S)	%						100	102	70-130			
Toluene-d8 (S)	%						100	103	70-130			

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

QC Batch: 542210
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478023001, 92478023003, 92478023004, 92478023005

METHOD BLANK: 2889137 Matrix: Water
Associated Lab Samples: 92478023001, 92478023003, 92478023004, 92478023005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	05/19/20 01:48	
1,2-Dichloroethane-d4 (S)	%	94	50-150	05/19/20 01:48	
Toluene-d8 (S)	%	94	50-150	05/19/20 01:48	

LABORATORY CONTROL SAMPLE: 2889138

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	18.6	93	70-130	
1,2-Dichloroethane-d4 (S)	%			97	50-150	
Toluene-d8 (S)	%			95	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2889139 2889140

Parameter	Units	92478022015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	ND	20	20	17.6	19.1	86	94	50-150	8	30	
1,2-Dichloroethane-d4 (S)	%						97	110	50-150		30	
Toluene-d8 (S)	%						93	98	50-150		30	

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QUALITY CONTROL DATA

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

QC Batch: 542729
QC Batch Method: EPA 8260D Mod.
Analysis Method: EPA 8260D Mod.
Analysis Description: 8260D MSV SIM
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92478023002

METHOD BLANK: 2891387
Matrix: Water
Associated Lab Samples: 92478023002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	ND	2.0	05/20/20 17:52	
1,2-Dichloroethane-d4 (S)	%	98	50-150	05/20/20 17:52	
Toluene-d8 (S)	%	106	50-150	05/20/20 17:52	

LABORATORY CONTROL SAMPLE: 2891388

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	20	19.3	97	70-130	
1,2-Dichloroethane-d4 (S)	%			106	50-150	
Toluene-d8 (S)	%			101	50-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2891389 2891390

Parameter	Units	92478023002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,4-Dioxane (p-Dioxane)	ug/L	99.8	20	20	120	127	99	134	50-150	6	30	E
1,2-Dichloroethane-d4 (S)	%						95	95	50-150		30	
Toluene-d8 (S)	%						99	115	50-150		30	

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REPORT OF LABORATORY ANALYSIS

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(704)875-9092

QUALIFIERS

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H1	Analysis conducted outside the EPA method holding time.
IH	This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Kop-Flex Recovery Wells onsite
Pace Project No.: 92478023

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92478023001	**RW-1S**	EPA 8260D	543382		
92478023002	**RW-2S**	EPA 8260D	543382		
92478023003	**RW-3S**	EPA 8260D	542927		
92478023004	**RW-1D**	EPA 8260D	543382		
92478023005	**RW-2D**	EPA 8260D	543382		
92478023001	**RW-1S**	EPA 8260D Mod.	542210		
92478023002	**RW-2S**	EPA 8260D Mod.	542729		
92478023003	**RW-3S**	EPA 8260D Mod.	542210		
92478023004	**RW-1D**	EPA 8260D Mod.	542210		
92478023005	**RW-2D**	EPA 8260D Mod.	542210		

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Pace Analytical®	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☑ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt

Client Name: WSP

Project #: WO# : 92478023
92478023

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☑ No

Date/Initials Person Examining Contents: SK 5-18-20

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☑ IR Gun ID: 92T061

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.8, 6.9, 10.7 **Correction Factor:** Add/Subtract (°C) +0.1

Cooler Temp Corrected (°C): 5.9, 7.0, 10.8

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☑ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☑ Yes	☑ No	☐ N/A	11.
Trip Blank Custody Seals Present? SK 5-18-20	☑ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Ice melted

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ **Date:** _____

Project Manager SRF Review: _____ **Date:** _____

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottle**

Project # WO# : 92478023

PM: PTE Due Date: 05/26/20

CLIENT: 92-WSP

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																5													
2																5													
3																6													
4																6													
5																6													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

Recovery Wells

CHAIN-OF-CUSTODY RECORD

WSP USA Office Address: 13530 Dulles Technology Dr. Ste 300 Herndon, VA

No. 008134

WSP

Project Name: Kopflex - Onsite

WSP USA Contact Name: Eric Johnson

Project Location: Hanover, MD

WSP USA Contact E-mail: Eric.Johnson @wsp.com

Laboratory Name & Location: Pace, Huntersville, NC

Laboratory Project Manager: Taylor Ezell

Project Number & Task: 31401545.010

WSP USA Contact Phone: (703) 709 6500

Requested Turn-Around-Time: ☒ Standard ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ ____ HR

Sampler(s) Name(s): Molly Long, Elliot M

Sampler(s) Signature(s): MM

Requested Analyses & Preservatives

	Sample Identification	Matrix	Collection Start* Date	Collection Start* Time	Collection Stop* Date	Collection Stop* Time	Number of Containers	VOCs 8260B	1,4-Dioxane 8260B SIMS									Sample Comments 92478023
C	RW-1S	AQ	5/13/2020		11	30	5	X	X									001
A	RW-2S	AQ	5/12/2020		14	40	5	X	X									002
B	RW-3S	AQ	5/12/2020		14	55	6	X	X									003
C	RW-1D	AQ	5/12/2020		15	30	6	X	X									004
C	RW-2D	AQ	5/12/2020		16	55	6	X	X									005

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Shipment Method	Tracking Number(s)
			SKoperface	5-18-20	912		

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time	Number of Packages	Custody Seal Number(s)

*Use stop time/date for composite and/or air samples; use only start time/date for all other samples.

Matrix: AQ = Aqueous, S = Soil, SE = Sediment, A = Air, W = Wipe, B = Bulk, O = Other (detail in comments)